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Housing Environment and Women's Health in the Palestinian Refugee Camps: a case study of Al- Ein Refugee Camp in Nablus City

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TO:
My Dear, Husband, Parents, and Daughters
With Love and Respect

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List of Abbreviations

ACR : American College of Rheumatology

AIS : American Institute of Stress

ALRI: Acute Lower Respiratory tract Infection

CSO : Camp Service Officer

NGOS: Non -Governmental Organizations

PCBS: Palestinian Central Bureau of Statistics

USAID :United States Agency for International Development

UNCHS: United Nation Center for Human Settlement

UNRWA: United Nation Relief and Works Agency

Abstract

A study of the housing environment and women's health was carried out during January and February 2002 in 150 homes of Al- Ein Refugee Camp in Nablus city. Interviews were held with 150 women of different age groups and different marital status. One hundred and three of women were married and 47 were single. Information was collected about the social profile, health profile, housing conditions, health services, and the perception of women towards their health and its relation to the housing conditions. The results show a significance relationship between women's physical and mental health and housing conditions. There is significant relationship between the family size represented by the number of children in the house, the number of children that sleep in one room, and the number

of children that sleep in one bed, the house size, and number of rooms and between women's feeling of privacy (mental health and well being). The study showed that most of the houses in the camp are unhealthy and over crowded. The family income is very low and there is a general poor health status of women in Al –Ein refugee camp in Nablus city. There was different interpretation of the concept of health. Most women understand health as only the absence of disease, others relate health to healthy

practices such as sanitation and good nutrition, and protection from diseases, in addition to this the woman's education plays a key role in the

determination of health of the whole family. Other women relate health to healthy environment and perceive the relationship between housing conditions such as crowding and humidity on health and well-being, and that poor housing cause health problems. But they do not understand the conditions of a healthy house. The study shows the importance of the housing reforms on health of the family in general and women's health in particular, mainly in Refugee camps.

Chapter 1

Introduction

1.1 Refugee camp’s living conditions

The Palestinian refugee problem was the result of two wars (1948 and 1967). Following the war of 1948, the UN Conciliation Commission estimated that there were 726,000 refugees outside and 32,000 inside the armistice lines. Of the approximately 800,000 Arabs originally situated in the area that became Israel, only some 100,000 remained in their homes and became an Arab minority in the Jewish State. In 1950, the newly established United Nations Refugee Working Agency (UNRWA) put the number at 957,000. The Israeli government calculates the number of refugees as 520,000, while Palestinian researchers suggest up to 850,000. During the second exodus in 1967, some 350,000 Palestinians left the West Bank and Golan area (UNRWA estimates), almost half of them second-time refugees. The number of their descendants is estimated at 700,000. The refugee issue has been on the agenda of efforts concerning a settlement of the Palestinian-Israeli conflict ever since. UN Resolution number 194 of December 1948 internationally recognizes the right of return for Palestinian

refugees. The number of Palestinians awaiting family reunification is currently estimated at 120,000. An additional estimated 100,000 persons have been denied re-entry into the West Bank and Gaza on grounds of having stayed abroad for periods longer than permitted by the Israeli authorities. (United Nation, 1986).

1.2 Palestinian refugees (definition)

Under UNRWA's operational definition,(Palestine refugees are persons whose normal place of residence was Palestine between June 1946 and May 1948, who lost both their homes and means of livelihood as a result of the 1948 Arab-Israeli conflict). UNRWA's services are available to all those living in its area of operations who meet this definition, who are registered with the Agency and who need assistance. UNRWA's definition of a refugee also covers the descendants of persons who became refugees in 1948. The number of registered Palestine refugees has subsequently grown from 914,000 in 1950 to more than four million in 2002, and continues to rise due to natural population growth (UNRWA, 2003b).

1.3 Refugee Camps

One-third of the registered Palestine refugees, about 1.3 million, live in 59 recognized refugee camps in the area of operations in Jordan, Lebanon, the

Syrian Arab Republic, the West Bank and Gaza Strip. A camp, according to UNRWA's working definition, is a plot of land placed at the disposal of UNRWA by the host government for accommodating Palestine refugees and for setting up facilities to meet their needs. Areas not designated as such are not considered camps. However, UNRWA also maintains schools, health centers and distributions centers in areas outside camps where Palestine refugees are concentrated, such as Yarmouk near Damascus. The plots of land on which camps were set up are either state land or, in most cases, land leased by the host government from local landowners. This means that the refugees in camps do not "own" the land on which their shelters were built, but have the right to "use" the land for a residence (UNRWA, 2003a).

UNRWA’s responsibility in the camps is limited to providing services and administering its installations. The Agency does not own, administer or police the camps, as this is the responsibility of the host authorities. UNRWA has a camp services office in each camp, which the residents visit to update their records or to raise issues relating to Agency services with the Camp Services Officer (CSO). The CSO, in turn, refers refugee concerns and petitions to the UNRWA administration in the area in which the camp is located. Ten of the camps were established in the aftermath of the June 1967 war and the Israeli occupation of the West Bank and the

Gaza Strip, to accommodate a new wave of displaced persons, both refugees and non-refugees. (UNRWA, 2003a).

Socio-economic conditions in the camps are generally poor with a high population density, cramped living conditions and inadequate basic infrastructure such as roads and sewers (UNRWA, 2003a). The other two-thirds of the registered refugees live in and around the cities and towns of the host countries, and in the West Bank and the Gaza Strip, often in the environs of official camps. While most of UNRWA's installations such as schools and health centers are located in refugee camps, a number are outside camps and all of the Agency's services are available to both camp and non-camp residents (UNRWA, 2003a).

1.4 West Bank refugee camps

The West Bank covers 5,850 square kilometers with an estimated population of 1.8 million. At the end of 1998 there were 562,737 registered refugees, one quarter of whom live in nineteen recognized refugee camps and the majority in West Bank towns and villages. Some camps are located next to major towns, and others are situated in rural areas. While the West Bank has the largest number of camps in UNRWA's five fields of operations, the largest camp Balata, has a similar size population to the smallest camp in Gaza. After the signing of the Oslo Accords in 1993, and

subsequent related agreements, the West Bank refugee camps gradually came under different zones: Shufat camp, which is situated within the municipal boundaries of Jerusalem, remained under Israeli control. Kalandia camp fell under "zone C" and remained under full Israeli control; six camps: Deir Ammar, Jalazone, Fawwar, Arroub, Fara and Nur Shams, fell under joint Palestinian/Israeli control (zone B); and the remaining eleven camps are under Palestinian Authority control (zone A). Following the implementation of the first phase of the 1998 Wye River Memorandum, Fara and Nur Shams came under "zone A" raising the total number of camps under full Palestinian Authority control to thirteen(UNRWA, 2003a).

Camp residents have been hard hit by closures imposed on the West Bank by the Israeli authorities over the past years on security grounds, since they are largely dependent on income from work inside Israel. Subsequently, unemployment has risen and socio-economic conditions in the camps have deteriorated. The West Bank camps are active social units. While UNRWA administers its own installations and program, camp residents run their own activities. The camp committees in each camp are regarded as an official body representing the camp population. In addition, UNRWA sponsors 15 women's program centers, 10 community rehabilitation centers, and supports 18 youth activities centers to cater to

the needs of women, refugees with disabilities and youth. Several Palestinian NGOs as well as Palestinian Authority ministries are active in the West Bank camps and provide various services (UNRWA, 2003a).

1.5 Housing conditions of the refugee camps:

All Palestinian refugee camps started with tents erected in a grid system. In the mid-50s, UNRWA began to encourage refugees to build their shelters in the camps to replace the tents. Bricks and asbestos were provided for camp residents to build units of uniform specified dimension :‘A units’ measuring 3 x 3 meters housed families with 1-5 members, B measuring 4 x 3.75 meters housed families with 6-9 members .C units’ measuring 4 x 4.45 meters housed families with 9-11.‘AA units’ were 6 x 3 meters, comprising of two rooms connected with an inside corridor, and housed 11-12 member families. BB units’ measured 8 x 4 meters, which housed families of more than 12 members in two rooms. At this time, UNRWA schools, clinics, distribution centers and offices, as well as public latrines

(Which no longer exist as all homes have indoor toilet facilities) were constructed. By the end of the 1950s and early 1960s, refugees began constructing additional rooms next to their units, as well as indoor toilets. Block rooms, with a small courtyard to grow a vine or lemon tree or vegetables substituted the old prefab units. Some refugees gave up some of

their plot and converted it into shops that lined the main streets (Budeiri 1996). As families grew, still more space was needed and the ground floor was expanded, eliminating the courtyard. By the beginning of the 1980s, the housing units had become stabilized in terms of space but the population continued to increase, precipitating a housing crisis (Mansour, 1998). Refugees at this time began to rehabilitate their shelters and construct new, more spacious ones with cement and iron bars (though some poorer refugees still live in the dwellings built in the mid-50s).

UNRWA provided building permits but did not supervise the construction itself. In the camps situated adjacent to towns, construction of homes was not able to spill over the boundaries of the refugee camps; hence, these camps' residents were the first to add a second story onto their shelters (Mansour, 1998). UNRWA approves the two-story constructions but will not authorize construction of third and fourth stories. The absence of laws during the Intifada encouraged the process of encroachment on public yards and by-roads. Public squares disappeared, the main asphalt public roads became very constricted, and the smaller roads became extremely narrow. Room additions or extensions (Mansour, 1999) replaced gardens and trees, planted in initial attempts to mimic the environment of refugees' original homes. Families considered by UNRWA as 'special hardship cases' qualify

for new shelters from UNRWA if their own has been demolished or become dilapidated. The Agency provides one 3 x 3-meter room, and a kitchen and bathroom for the family, as well as cement and cash assistance. While these shelters are better constructions than those built in the 1950s, they do not satisfy the housing needs of the families. An extreme example of their inadequacy is witnessed in Aqbat Jaber camp near Jericho where 40-50 shelters (of 3 x 3 meters at a height of 2.5 meters) were constructed and are all now being used for storage rather than living quarters. The very high temperatures in the Jericho area are such that ceiling fans are a necessity and the constructed shelters were not high enough to enable a fan to be installed on ceilings (Mansour, 1998). It should be noted, however, that the Jericho area camps do not suffer from a housing crisis. Before the Intifada, some refugees built in the areas surrounding camps. With the surge in prices of land since the start of the peace process, people are unable to afford to buy any land. The crisis surged to the point where, for example, in Jenin camp "there are typically 10 children living in each two room house." In some camps, such as Dheisheh camp near Bethlehem, there are many houses whose construction was started but not completed as the family ran out of money. Other families have sometimes occupied these half-built structures, living within the walls, with no roof, windows or flooring.

1.6 The home as a focus of study

The Palestinian refugee home has played important social, political and historical roles. The physical organization of the home and refugee camp has been a factor in maintaining social cohesion and political aspirations of refugee communities. The layout of the camps and design of homes in the years following 1948 and, more recently, the physical presence of the houses and camp boundaries express the political aspirations of Palestinian refugees. The experience of the Intifada has also shaped the role of the home and environment for Palestinian refugees in particular ways. Cultural norms play a large role in how spaces and environments are experienced. It is sometimes believed that cultural norms and expectations mitigate household crowding. For example, it is historically customary for Palestinian sons to live with their wives in the same or adjoining household as their parents. This custom developed in the context of an agricultural setting, where the household was able to physically and economically expand, along with the growth of the family. Also, historically, the cultural background, education level, and thinking of the daughter-in-law, the newcomer to the household, would not have been very different from that of her husband and his parents. Today, there is less social homogeneity. As one UNRWA representative explained: within the family, the wife may not

have the same thinking, culture, and education as her husband’s mother. Parents of the wife will try to ask for separate housing as part of the marriage agreement. This sometimes creates conflicts between the parents of the wife and the son-in-law and/or his parents (Marshy, 1999).

1.7 Infrastructure

Land for the provision of school extensions, health centers and other installations is becoming scarce within the camp boundaries. UNRWA schools are invariably overcrowded, with 45 to over 60 students in each classroom, and students attending in double shifts through the day. Teaching quality is reported poor, with new, unqualified teachers hired on contract (as UNRWA cannot afford to hire them permanently). Many of the schools also need to be replaced. Medical services are also overburdened.

Each camp has at least one health clinic. Doctors working in clinics in the camps typically see over 100 patients per day. The healthcare services provided by UNRWA are distributed on the basis of one health clinic per 10,000 persons. This, however, is insufficient to address current needs, given the high average patient load per doctor (Giacaman, 1994). Rita Giacaman, who has conducted extensive research on health care, suggests that a ratio of one comprehensive primary healthcare center is needed for each 5,000 people (Giacaman, 1994). Camp residents are sometimes

obliged to seek health services outside of the camp, which places greater financial burdens on them.

1.8 Demographics and population densities of camps and households

Overcrowding in the camps is expected to continue to increase. Nearly half the refugee population is under 14 years of age (Budeiri, 1996); and the Palestinian population in the West Bank and Gaza has one of the highest fertility rates in the world, at 5 percent per year (Bellisari, 1994). The average area density of the refugee population living in camps in the West Bank and Gaza as a whole is estimated at 37.35 sq. meters per individual (Mansour, 1998).

The camps, though, are not uniformly overcrowded. Most of the urban camps may be characterized as 'urban slum areas' because of their physical and socio-economic similarity to slum areas in other developing countries. On the other hand, some camps are situated in rural areas, which provide agricultural work for refugees (Abu Libdeh et al, 1993). Shufat camp, established in 1966, has about 20,000 residents, more than half being, in fact, non-refugees who, not being able to afford to build in other areas of Jerusalem, resorted to living in the camp in order to maintain their Jerusalem residency status. The Israeli authorities have demolished Shufat

camp is particularly overcrowded because any housing built on land adjacent to the camp (Mansour, 1998).

1.9 Service provision

The case of Dheisheh Camp: in Dheisheh Camp, located near Bethlehem, there is a population of 11,000 living in 1 sq. km. The UNRWA Director of the Camp, Hussein Shahin, summarized the overcrowded state of the camp, in noting "each family tries to make use of every single centimeter in the camp." In summer, there is a water shortage, in winter, an electricity shortage. Hussein Shahin noted that the water pressure is not sufficient to reach the higher parts of the camp for ten days per month. There are no wells and not enough water tanks. No more water tanks will fit on top of families' homes as the roofs are in danger of falling through. The electricity lines were installed in 1973 and are now no longer enough, with washing Machines, fridges, electrical equipment. Sewage removal in Jabalya and Shati (Beach) Camps in the Gaza Strip: Only 20 percent of all camp dwellings in the Gaza Strip are connected to sewers (Hoadley and Cook, 1992). Camps generally have a system of exposed drains. In Jabalya and Shati Camps, small open channels conduct household wastewater into larger channels that are choked with trash. During fishing season, when the openings to the sea are sealed, and during the winter when it rains, the

camps are flooded with waste and sewage (Bellasari, 1994). This poses a serious health risk that is exacerbated by overcrowding. The constricted space between homes makes it difficult and sometimes impossible for garbage removal vehicles to operate. Large piles of garbage accumulate, representing a health hazard and a source of considerable frustration. The burden on households: the lack of sewage systems in many camps has led to refugee households obtaining their own septic tanks. In Fara camp, north of Nablus, there are more than 1000 septic tanks. Leakage from these tanks is a risk to drinking water as well as to the foundations of the shelters (Mansour, 1998). The waste also leaks down into the water table, the source of drinking water. In consequence, drinking water that is consumed often causes serious gastrointestinal disease, which is especially dangerous to the health of children and the elderly. Water-borne and respiratory diseases are

Common among Palestinian camp refugees in the region, and infant mortality is still unacceptably high despite a reduction in the rate (Budeiri, 1996).

1.10 The role of UNRWA during the Intifada

Since the beginning of the Intifada in September 2000 UNRWA has been working to alleviate the impact of violence, curfews and closures on the

refugee population in the West Bank and Gaza Strip .The crippling effect of closures on the Palestinian economy has caused thousands to lose their livelihoods. It is estimated that more than 50 per cent of the population is out of work - putting 50-60 per cent of the population under the poverty line with an income of below $2 a day.

The UN Office for Co-ordination of Humanitarian Affairs reports that close to two million Palestinians, 62 per cent of the population, are considered "vulnerable" because they have inadequate access to food, shelter or health services(UNRWA,2003b).

In August 2002, a US Agency for International Development (USAID) study reported that malnutrition and anemia among Palestinian children – marked by stunted growth or low body weights – had increased to levels normally associated with emergencies in sub-Saharan Africa. As part of its emergency relief activities UNRWA provides temporary jobs for unemployed breadwinners – a program that allows the Agency to indirectly support 160,000 women and children in Gaza alone. The Agency has also greatly increased its provision of food aid whereas before the strife UNRWA distributed food to 11,000 refugee families it is now targeting almost 220,000 families across the West Bank and Gaza. In total UNRWA has distributed 1.5 million food parcels. The Agency has also had to assist

the more than 5,000 refugees whose homes have been damaged or destroyed during military operations. UNRWA has provided tents, blankets, kitchen kits, medicines and drinking water, as well as cash assistance to help with renting a new home, to those families made homeless. The Agency is also rebuilding and repairing shelters. The main focus of the Agency's rebuilding work has been Rafah in the southern Gaza Strip and in Jenin camp (UNRWA, 2003b).

UNRWA starts a two-year program to rehabilitate the homes, infrastructure and communal facilities of the camp that were destroyed by the fighting in April 2002.UNRWA's health program faces increased demands in the Palestinian territories because of the injuries, stress and psychological trauma caused by the conflict. The economic impact of closures is also increasing the demands made on the Agency as refugees seek care from the Agency rather than from private providers. UNRWA ambulances and mobile medical teams are attempting to bring healthcare to communities isolated by closures for long periods. In the midst of heavy fighting UNRWA staff have distributed blood products, drugs and medical supplies at great personal risk to themselves .The crisis has had a particularly marked effect on the refugee children served by UNRWA's schools. Teachers and pupils are often unable to reach their schools and

thousands of teaching days has been lost. Schools have come under fire on many occasions and have been used as military outposts and detention centers. The violent events witnessed by the children have caused emotional and psychological trauma and many have suffered the loss of classmates or family members. Examination pass rates have collapsed because of the conflict and UNRWA is running hundreds of hours of remedial classes in each school to try to compensate for the time lost to education. The Agency has also hired teams of trauma counselors to work with those children who have been emotionally scarred by their experiences.(UNRWA, 2003b).

1.11 Refugee camps in Nablus City

There are four camps situated in Nablus City, 3 of them are around the city, the fourth one is 15 Km from the city. These camps established between the years (1949-1953). There is a great variations in the areas of these camps . The area of Al-Ein Refugee Camp (the place of study) is 45 donoms while Balata camp area is 252 donoms. Nowadays camps are a part of the body of Nablus city and the building construction exceeds the limits of these camps. Which makes the extension of these camps beyond their existing boundaries impossible in the future. Most houses are built of concrete and bricks, the number of residents of camps of Nablus city increases about

82% in the period between 1967-1994 the density of person per area is 111in Al-Ein camp, 64 in Balata, 50 in Asker camp. The housing conditions in the camps of Nablus city are the same as other camps in the West Bank, are poor and overcrowded and the services are provided either by the municipality of Nablus or the UNRWA (Zanoun, 1998).

1.12 Al-Ein Refugee Camp/place of study

Al-Ein Refugee Camp is located close to Nablus and dates back to 1950. The camp is a home to 1200 families, most of who are from villages or cities that are now inside Israel like Jaffa, Al Abasieh, Safad, and Yzour. About 65 percent of the population of the camp are under 20 years of age. The camp is extremely cramped and overcrowded. According to UNRWA, during funerals the deceased are usually passed through windows from one shelter to another in order to reach the camp's main street. There are two Schools in the camp, one for boys and one for girls, covering the primary and preparatory levels. Neither school is heated in the winter and there are no libraries. There is one private daycare center in the camp, but there is no playground or playing space for the children. Most of the services in the camp are under the responsibility of UNRWA, but many of these services are lacking. There is an UNRWA health center, a dental clinic and an X-ray lab. There is also a health clinic that belongs to the Palestinian military

services but it is in poor condition. The director of Al- Ein refugee camp reported that, when Al –Ein refugee camp was established by the year 1950 there was no health facilities. By the year 1957 there was a large tank of water as a source of water for the whole camp, with a shared toilet for both men and women which is stressful and hazdarous. By the year 1962, the camp was provided with electricity by the municipality of Nablus. By the year 1965 the sewage network was established in the camp. Water was connected to the camp by the year 1970. Water and sewage services are available but need to be upgraded. Telephone services are available. Only the main road is paved. There are three community organizations in the camp: a women's activity center built by Save the Children and UNRWA, a camp service committee, and a social center for youth. The Neighborhood Corner project in Al-Ein Refugee camp will be the building of a library. Construction is currently underway (UNRWA, 2003a) In addition to this infrastructure; the program in Al-Ein camp will include a youth leadership development training course, young women's awareness program, and environmental workshops and children's entertainment workshops. There are no longer any single story shelters in the camp, with 60 percent of the buildings three stories high, 30 percent two stories, and 10 percent four stories. The individual share of this area is 7.8 sq. meters (Marshy, 1999).

1.13 Housing and health

Housing is defined as a house, shelter or dwelling. A household is one or more families or individuals "who make common provision for food or other essentials of living" (Clauson-Kaas, et al, 1996).

1.14 Direct effects of housing on health

1.14.1 Natural lighting and ventilation

Poor housing structure lessens natural lighting in rooms, preventing exposure to sunrays that provide the necessary ultraviolet rays for the body to utilize vitamin D (Filfil, 2000). Consequence of inadequate heating insulation and ventilation encourages mold, and other microorganisms to grow many molds are allergenic and provide a food supply for house mites, which are also potential allergens.

Researches in this field include a series of studies, the first was conducted in 1986 by Martin *et al*, (1987) in the area of North Edinburgh where residents were already concerned about dampness and its effect on their health. Their study found the emotional reaction scores that were higher in damp houses, however defective housing was strongly associated with ill health among children. Aches and pain nerves diarrhea and headache were more prevalent among children in damp housing 85% had experienced at

least one respiratory problem in the previous two months compared to 60% in non damp housing. Children in moldy homes show higher rates of vomiting, sore throat and general illness (Wilinkson, 1999). Damp housing, mold growth and symptomatic health state. This study reaches firmer conclusion on the relation ship between adult ill health and damp and moldy housing, adults in such housing had more symptoms and are more likely to have suffered nausea and vomiting, blocked nose breathlessness, backache, fainting, and bad nerves (Wilinkinson, 1999).

1.14.2 Cold

Combined with high humidity, a body of research has focused on the effects of air temperature on health much of this has involved comparing statistical patterns of illness or death with temperature data. The hypothesis that can act independently determinant of health is supported by excess mortality in winter in Britain. For each degree Celsius by which the winter is colder than average there are excess 8,000 deaths. From January to March there are typically 20,000 more deaths in the UK than the average rate for the year, and this excess mortality is highest in the elderly and lower social classes. A report on health in the Lothians examining health figures from 1974 to 1989 estimated the number of excess winter deaths in Scotland to lie in the range 4,000 to 7,500 (Wilinkinson, 1999). The biggest

causes of these winter deaths are cardiovascular and respiratory conditions. Hypothermia itself is relatively uncommon and accounts for an estimated 1% of excess deaths. The incidence of domestic accidents also increases in winter, probably due to the effect of cold temperature on cerebral function. Although the causal link with cold housing is not proved. Other survey has demonstrated the extent of cold houses, for example Primrose (1999), found that 64% of surveyed had living rooms below 16 degrees c. Although excess winter mortality may arise in part from exposure out of doors, it is argued that as the elderly spend little time out of doors in winter, the indoor environment may be influential. An analysis of "excess" winter mortality in Scotland between 1958 and 1987 showed a consistent drop over that period from 42.1% 1958-62 to 24.5% 1983-7and it is suggested that this may, in part, be attributable to increased central heating and other improvements (Wilkinson, 1999).

1.14.3 Site of residential area

It is better to select a site that is sheltered from the winter wind, has good exposure to the sun, has natural cooling in the summer and has healthy vegetation. The building site should be dry, provide water, septic or sewer and it needs to have source of electricity. It might be difficult to find the perfect site, but most importantly, is the feeling connected to a place, an

optimal solution can always be worked out. Also the site should be away from outdoor pollution sources such as industrial pollution. (Dodson, 1999).

1.14.4 Sources of indoor air pollution

Indoor air pollution is caused by an accumulation of contaminants that come primarily from inside the building, although some originate outdoors. These pollutants may be generated by a specific, limited source or several sources over a wide area, and may be generated periodically or continuously. Common sources of indoor air pollution include tobacco smoke, biological organisms, building materials and furnishings, cleaning agents, and pesticide (American Lung Association (ALA), 1994) .

1.14.4.1 Health problems related to environmental tobacco smoke

Environmental tobacco smoke may cause a variety of health problems such as rhinitis / pharyngitis, nasal congestion, persistent cough, conjunctival irritation ,headache wheezing (bronchial constriction) exacerbation of chronic respiratory conditions .Improved general ventilation of indoor spaces may decrease the odor of environmental tobacco smoke (ETS),and decrease health risks .

1.14.4.2 Health problems caused by combustion products (Stoves, Space Heaters, Furnaces, Fireplaces **)** such as

- **Carbon monoxide**

Colorless, odorless gas produced by incomplete fuel combustion. Is extremely toxic. Most deaths are self-inflicted and most fatal accidental poisoning that is due to fires in addition to fatal poisoning exposure can lead to long term damage with a wide variety of effects associated with chronic or recurrent low dose exposure. Correctly installing and maintaining cooking and heating appliances can reduce hazards, and ensuring there is appropriate ventilation (Wilinkson, 1999).

- **Nitrogen dioxide (NO2) and sulfur dioxide (SO2)**: Act mainly as irritants, affecting the mucosa of the eyes, nose, throat, and respiratory tract. Acute $S0_2$-related bronchial constriction may also occur in people with asthma or as a hypersensitivity reaction.

1.14.4.3 Health problems caused by molds, dust mites, other biological

House dust mites

The presence of molds and microorganisms in the house causes health problems such as recognized infectious disease, Mite allergens can trigger Type 1 allergic reactions the most Important of which is asthma. rhinitis ,

conjunctiva inflammation , recurrent fever , malaise , dyspnea , chest tightness , and cough (ALA, 1994) . The growth of mites depends on a combination of humidity and temperature and on the age cleaning and the use of soft furnishings, the most preventive measure involve cleaning (Wilinkson, 1999).

1.14.5 The effect of house building material

It is ideal to build a structure which is impervious to decay, termites, and moisture, one that is fire resistant and has very good insulation, all while creating a low impact on the environment. According to Bau-biologie, the exterior walls of a building act as third skin. (The second skin is our clothing.). A health-promoting building regulates the temperature and moisture content of the indoor air and provides fresh air by allowing air circulation (breathing). Breathing walls are usually made out of porous materials, often with thermal mass. The wall warms up the incoming air like an air exchanger and at the same time lets moisture pass through.

Conventional materials tend to seal the indoor environment and neither fresh air from outside nor moisture from inside passes through. The result is high concentrations of indoor air pollutants and moisture condensation. Moisture condensation promotes mold and mildew growth. Therefore, if the construction system is airtight, the building needs to have a mechanical

air control system with fresh air intake and humidity control. Most materials that emit toxic gases take four to five years to “outgas,” or lose the intensity of their toxicity. (Dodson, 1999).

There are many problems caused by heavy metals: airborne lead and mercury vapor. Indoors, the chief source of lead is paint. Lead levels in paints for interior use has been increasingly restricted since the 1950s, and many paints are now virtually lead free. But older housing and furniture may still be coated with leaded paint, sometimes surfacing only after layers of later, non-lead paint have flaked away or have been stripped away in the course of restoration or renovation. In these circumstances, lead dust and fumes can permeate the air breathed by both adults and children, causing lead poisining which leads to discomfort/constipation/anorexia/nausea , fatigue, weakness, personality changes , headache , hearing loss , tremor, lack of coordination(ALA, 1994).

1.14.6 Health problems caused by two long-term risks: asbestos and radon

Asbestos and radon are among the most publicized indoor air pollutants. Both are known human carcinogens. Their carcinogenic effects are not immediate but are evident only years, even decades, after long exposure.

1.14.6.1 Asbestos

Once widely used in structural fireproofing, asbestos may be found predominantly in heating systems and acoustic insulation, in floor and ceiling tiles, and in shingles in many older houses. It was formerly used in such consumer products as fireplace gloves, ironing board covers, and certain hair dryers. When asbestos-containing material is damaged or disintegrates with age, microscopic fibers may be dispersed into the air. Over as long as twenty, thirty, or more years, the presence of these fibers within the lungs may result in asbestosis (asbestos-caused fibrosis of the lung, seen as a result of heavy occupational exposure), lung cancer and pleural or peritoneal cancer, or mesothelioma. For lung cancer, the effect of tobacco smoking in combination with asbestos exposure appears to be synergistic by approximately fivefold.(ALA, 1994).

1.14.6.2 Radon

Is radioactive gas that enters buildings from underlying soil and rock. When dose being delivered to the lungs, the only established effect of radon and its decay products when inhaled, they irradiate tissues of the body with the largest dose being delivered to the lungs the only established health effect of radon is lung cancer (Wilkinson, 1999).

1.14.7 Overcrowding and health

Until the last two decades, it has been assumed that people living in crowded conditions have ill health because they are poor. European data from the turn of the century considers ‘overcrowding’ as being synonymous with poor housing conditions. Importantly, writers made no attempt to ask why overcrowding as such would lead to poor health. ‘Overcrowding,’ ‘unhygienic’ and ‘unsanitary’ conditions were assumed to explain the poor health conditions and high mortality rates among the working classes (UNCHS, 1995).

Concern about the health impact of overcrowding is emerging in both developed and developing countries in conjunction with malnutrition and lack of sanitary hygiene. One of the first attempts to quantitatively ascertain the relationship between in-house crowding and health was undertaken by the United Nations Center for Human Settlements (Habitat) in 1992. In the course of a two-year study of two urban communities in Bissau, Guinea Bissau and Jakarta, Indonesia, overcrowding was measured at the level of room, household, building, and area. The study affirms that the transmission of disease increases among people living closely together (Marshy, 1999). Specifically, overcrowding increases the risk of infection as the number of potential transmitters is increased. The result is that

children and adults living in crowded conditions get more infections and more severe infections. Young children carry the largest burden of morbidity and mortality. Hence, many small children in a household increase the risk of acquiring a communicable disease for all household members. In the case of a number of highly communicable diseases, young children are more potent transmitters than older children and adults (UNCHS, 1995). The UNCHS study investigates crowding as a risk factor for low birth weight, diarrheal morbidity and childhood mortality. The study suggests that rather than the traditional measure of persons per room, a better indicator is ‘bed crowding’ and ‘crowding of small children’ as these seem to give a more sensitive indication of crowding as a risk to increased mortality (Marshy, 1999). The higher risks of infection leads to infection at a younger age which, in turn, is a determinant of severity and fatality of the disease. The higher number of susceptible individuals per family is a risk factor for mortality. Overcrowding is also considered to increase the risk of, in particular, the long-term adverse effects of infections (UNCHS, 1995). Several studies suggest that illnesses such as whooping cough, polio, diarrhea, malaria, meningitis, acute lower respiratory infections (ALRI), influenza, hepatitis A, hepatitis B, helminthes diseases, stunting, chronic diseases, and stress may be related to crowding (Bradley, et al. 1992). There is clearly recognition of the need to improve human

settlements with the purpose of improving health. The UNCHS (1995) underlines the importance of the provision of water supply and sanitation for households. With expected benefits being a decrease in diarrhea, intestinal, and respiratory diseases. In developing countries the respiratory diseases are the dominating cause of disease burden for children under 5, a leading cause for the age group 5 to 14, and the dominating communicable disease for adults and the elderly) (UNCHS, 1995). Child health and safety issues are touched on briefly in analysis of survey data on housing in the West Bank and Gaza (Heiberg, 1993). One of the more interesting pieces of data collected in FAFO's survey of housing notes that, West Bank refugee camp residents find their houses two times safer than Gaza camp residents. Implying, according to Heiberg, a relationship between the human density of the house and perceptions of the safety that the house affords young children.

1.14.8 Overcrowding in Refugee Camps in the West Bank and Gaza Strip

The fact that camps have not expanded beyond their original boundaries and the increasing population density are the two main causes of overcrowding in the camps. Overcrowding is more acute in camps located near municipal boundaries where rental costs are exorbitant. Human

crowding or density in the West Bank and Gaza is most acute in the Gaza refugee camps (Heiberg, 1993). Overcrowding in households in Gaza refugee camps is exacerbated by the fact that the shelters are made with substandard building materials such as zinc and asbestos roofs (Marshy, 1999).

1.14.9 Overcrowding and health in refugee camps

According to international experts:

The basic essentials for public health are proper adequate nutrition, and a clean, sufficient water supply. Because these factors are the primary determinants of population's health status, they have priority over all others, including adequate medical care (Bellisari, 1994). The availability of sufficient potable water is a problem in the West Bank and Gaza generally. Some areas are worse than others. For example, the Hebron area has lacked water for the past two months of the year 1999 (June and July, 1999) and the shortage is expected to worsen. In Gaza, salination is a serious problem and believed to be responsible for liver and kidney failure (Bellisari,1994). Infectious illnesses are also caused by poor and insufficient water supply. Anna Bellisari, a health researcher who writes about the health risks of water shortage in the West Bank and Gaza, explains that: Water shortages and pollution, especially in vastly

overcrowded camps, are classic preconditions for infections such as viral, bacterial, fungal, and parasitic diseases. Either waterborne or associated with poor public sanitation and personal hygiene (Bellisari, 1994).

Birzeit Community Health Unit reports that 48 percent of elementary school children in three West Bank camps were infected with intestinal parasites; malnutrition accompanied the parasitic infections, making the children more susceptible to infection (Marshy, 1999). The potential for epidemics is very high, and severe and long-term consequences are anticipated unless the water crisis is alleviated (Marshy, 1999). These health risks are greatly exacerbated by overcrowding in the home and camp. Astudy made in Al- Ama'ri refugee camp, showed great association between the crowding in the camp with the high rate of disease transmission especially among children (Al-Khatib, *et al*, 2003).

1.14.10 Overcrowding and safety in the home in refugee camps

Overcrowding in West Bank and Gaza camps affects safety within the home in several important ways:

- The safety of the physical structure of the dwelling is jeopardized by the need to build vertically, given the lack of space to extend homes by side additions. The numbers of people using them that can lead to health risks burdens are toilet facilities.

- The high number of people in the household puts a burden on water resources in the home and leads to insufficient water for consumption and hygiene—which poses a health risk.

- The safety of kitchen facilities decreases when they are used in overcrowded homes.

- The constricted space in and around the home means that the safe storage of agricultural and other chemicals is more difficult to ensure.

- Accidents in the home are more likely to occur as sufficient supervision of young children is often difficult.

To elaborate on the first point, the physical structures of the homes, with additions built hastily with no adherence to building safety codes, pose a safety risk. Second and third floors, and sometimes fourth floors, are built on the initial single story dwelling and rest on a foundation that wasn't meant to support the additional levels. UNRWA provides permission to build a second story but there are no building standards. People often build without the required permits, especially if constructing third or fourth stories as they do UNRWA does not issue permits to build beyond the second story. An UNRWA representative relayed that it is not easy to control the quality of construction in the camps as there are limited staff and no site engineers or funds to provide these essential services. To

provide sufficient supervision to ensure building standards, a total of 100 engineers would be required in the West Bank alone, accounting to four to five engineers per camp. In terms of accidents in the home, David Satterthwaite, Director of the Human Settlements Program at the International Institute for Environment and Development (London), notes that accidents in the home greatly increase in overcrowded conditions. Many accidental injuries arise from poor quality, overcrowded housing not surprisingly considering that there are often four or more persons in each small room in shelters made of flammable materials and that there is little chance of providing occupants (especially children) with protection from open fires or stoves (Satterthwaite, 1995). Pesticides are often stored in homes where, because of lack of space, children have ready access to them. Because Palestinian farmers often cannot read the Hebrew instructions on toxic chemical fertilizers, they often mix, apply, and store them without taking any safety precautions. (Bellisari, 1994).

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1.14.11 Psychological and mental effects of overcrowding on health

Exploring the very intertwined effects of ‘ten people living in one room’ proves more complicated. Khaled Mansour, researcher who has examined the problem of housing in refugee camps in the West Bank and Gaza, notes that living in refugee camps has created "special features of behavior for

the refugees who find it difficult to assimilate into the non-refugee communities" (Mansour, 1998). Aggressive behavior of the refugees was also noted. An UNRWA representative commented that: Psychological effects are noticeable. Tempers of refugees are hotter than others, by mere Observation. When they ask for something, they do not ask with good tempers, they shout and scream and are nervous. Attaining psychological help and counseling is hampered by taboos. Qouta notes that former political prisoners refuse these services because "they have been welcomed back as heroes, and psychologically you can not be both a hero and a 'mental case’ at the same time" (Doughty, 1996). Overcrowding might also contribute to the generalized frustration of residents with their plight; spatial constraints reinforce the constriction of the future. As a woman in Khan Younis refugee camp reported to Doughty: "our mythology, our dreams, all look north and south, not here to the Strip. North we look to the land we lost and south we look to Egypt, which we are told in schoolbooks, is a kind of paradise. So two paradises we cannot have, while we live here in hell" (Doughty, 1996).

1.14.12 ‘Subjective crowding’

As noted in the review of literature, subjective crowding, or the felt experience of crowding, is as important as objective conditions. For

residents of refugee camps in the West Bank and Gaza, the fact that they represented the stronghold of the Intifada, suffered considerable personal loss, and has had their expectations rise with the establishment of the Palestinian National Authority. There is a feeling among them that their Housing problems should be a priority (Mansour, 1998). This expectation would play a role in how they experience overcrowding and their behavioral responses to it.

1.14.13 Social conflicts

The social level: conflicts arise often in the camps due to irritations from noise, lack of privacy, the proximity of neighbors, and lack of playgrounds or parks. There are very few play areas for children in the camps. Hence, conflicts between kids often create conflicts between their parents. It is felt that these problems would not exist if there were no overcrowding. Solutions are found which provide for ways of recreating social cohesion. For example, Arroub Camp, south of Bethlehem, has a committee of 17 ‘old people’, which solves problems and conflicts between people. But, overcrowding in the camps also affects more profound social processes. In Al-Ein refugee Camp (the place of study), the deceased must be moved from one shelter to another through windows so as to reach the main street to be placed in the coffin (Mansour, 1998). In Rafah Camp in Gaza, where

lane-ways do exist, there is not enough room for both a coffin and people on each side to carry it, hence the deceased are carried in coffins over roofs. The individual level: overcrowding affects social relations at the family, neighborhood, camp, and community level in extremely complex ways. At the individual level, frustration is experienced because, typically, the refugee camp resident:

- is living in overcrowded housing and in an overcrowded camp;
- cannot afford to move outside the camp;
- cannot afford to build an extra floor;
- cannot afford, or is unable because of lack of space, to build an extension to the dwelling structure;
- does not have sufficient employment which would enable them to opt for any of the above in the near future;
- is a member of a growing family with increasing expenses and decreasing resources and space for housing;
- is faced with a situation whereby the conditions which would enable him/her to change their situation are themselves jeopardized by the effects of overcrowding (which include increased frustration level; decreased

ability to concentrate on schooling or training; increasing expenses because of greater health risks).

In the course of extensive research undertaken in camps in the West Bank, Jarrar, 1998, witnesses the day-to-day frustrations of refugees. He reports on what he describes as the common experience:

One young man in Balata Camp expressed a frustration that reflects the common experience. He is the fifth of five sons who live with their parents in a small house in the camp. All four of his brothers are married with three to five children each. The young man said he feels very happy when he is outside the camp but when he enters the camp there is a black cloud over his head. He feels there is no room in the house for him; he sleeps in the corridor and must endure ‘bedroom’ noises. He feels he has no privacy; along with his neighbors, his own as well as neighboring households hears everything he does in the bathroom. He cannot enter his home without first knocking and waiting several minutes outside in order to give his sisters-in-law time to cover their hair with their scarves.(Marshy, 1999).

1.15 Indirect effects of housing on health

Ambros has listed indirect effects of housing on health as including lowered resistance to physical and mental illness through living in a poor,

stressful conditions, and unhealthy habits (possibly coping strategies); and reduced self-organisation.A small body of work has considered housing in the context of its location. Other research has looked at the effect of neighborhood alone on health. Apart from wider body of work on geographical patterns in morbidity and mortality, Ellaway and MacIntyre, for example, have argued that in addition to the direct effects of housing neighbourhood conditions on health, there are indirect effects caused by lack of opportunities, to access education, jobs, services etc. Her research in Glasgow has compared 4 socially, contrasting neighbourhoods and found that health related behaviours (smoking, drinking, diet,exerrcise etc.) were independently associated with neighbourhood among adults after, controlling for gender, age, social class and income. She has concluded that housing disadvantage, personal disadvantage and neighbourhood disadvantage are inextricably linked in ways which influence health (Wilinkson , 1999).

1.16 Housing environment and women's health

Most existing discussions on women's health have considered mostly the reproductive health, at a health policy level especially in developing countries women's primary significance as child bearer and child carer (Lewis, 1994). Women's health involves women's total well-being a

condition of life not only determined by women reproductive function, but also by the effect of work load, nutrition, stress, war and migration (Vav, 1991). Among these factors are the environmental risks to women’s health particularly risks a rising from the biophysical environment (Carr, 1992 and Yoon, 1994), the biophysical environment include both the natural environment and the constructed or built life space. Women are the primary health managers. They manage health through their domestic work, through cleaning, sweeping, drawing water, washing clothes, dishes and children and preparing food (Kettel, 1996). Women are central for the maintaining of health and well being of their household. The social, economic, and biophysical hazards including housing conditions form health risks and have an important impact on maternal morbidity and mortality. Koblinsky *et al*, (1999) offer a view of possible impact of the biophysical environment on women s menstrual health which in turn impacts their success in pregnancy and childbirth, and their overall health and well being. As Koblinsky et al suggests (the reproductive system is responsive to a multitude of environmental signals and systematic exploration of alternative (environmental) factors is clearly warranted. (Kettel , 1996).

1.16.1 Women and poverty

Several studies draw attention to inadequate housing as an outcome of poverty that create health hazards for the women in India. Bhatt (1987) noted the detrimental impact of crude stoves, biomass fuels and poor ventilation on the respiratory health of women and children. She also comments that infections and accidents are the leading killers of women during the reproductive age. For poor women in the united kingdom, poor quality housing means poor heating, lack of space, damp living conditions, lack of hot water and inadequate furnishings both separately and in combination, these difficult conditions impact on the health of women and their children in an ongoing manner (Payne , 1991).

1.16.2 Women illiteracy

Illiteracy is also an important factor in the creation of life spaces hazardous to women's health, the world bank reported that education is strongly associated with good health, while literacy plays extremely powerful role in determining population levels of mortality (Kettel, 1993). Worldwide women have a primary responsibility for the maintenance of the life space, especially the dwelling place and the provision of family health care. Illiteracy that is a common outcome of lack of education denies women the

opportunity for vital health learning, particularly importance of sanitation and personal hygiene in personal and family health care.

1.16.3 The effect of housing conditions on women's health

Women are the primary users and managers of the biophysical environment (Dankelman, 1988). The role of the women in the house as household provisioners and health managers also exposes them to particular environmental risk,. The housework duties and caring of children strongly binds women to home , however , these socially determined roles may put women under stresses and contribute to causing illness ,(Filfil, 2000) .

1.16.4 The house work and women' s health hazards

Health problems caused by volatile organic compounds in home (cleaning agents and pesticides)

At room temperature, volatile organic compounds are emitted as gases from certain solids or liquids. Which include a variety of chemicals (e.g., formaldehyde, benzene, perchloroethylene), some of which may have short- and long-term effects. Concentrations of many volatile organic compounds are consistently higher indoors than outdoors. A wide array of volatile organics are emitted by products used in home, such as personal items such as scents and hair sprays; household products such as finishes,

rug and oven cleaners, paints and lacquers (and their thinners), paint strippers, pesticides , dry-cleaning fluids, building materials and home furnishings, as woman is the user of these products so her health is mostly affected by them if there are no safety in the home and no safe storage space.

Also the spiritual aspects of design affect the woman in the home. How does one create an inspiring, wholesome atmosphere? The organization and shape of spaces, the choice of materials, colors and lighting, the unique requirements of her life combined with the characteristics of the site should result in a harmonious design and provide her with inspiration and upliftment to enhance her life. (Dodson, 1999).

1.16.5 Accidents in the home and woman's health

Women are at great risk of accidents such as burns, electrical shock, falling from stairs and injuries by broken glass. Poor and inadequate housing increases the rate of home accidents.(Filfil, 2000).

1.16.6 Overcrowding and women's health and well being

Overcrowding physically and emotionally overburdens mothers and caregivers increasing health risks of dependents. Overcrowding has also

far-reaching social problems. It may cause a strain on women social relations within the home and community. It is a push factor in the decisions leading to girl's early marriage (before the age of 18) which in turn leads to serious health and ramifications for women and children. Also overcrowding affect women 's access to social and economic resources it increases their responsibilities in the home and burdens their time. Gove and Hughes assert that too many social demands and a lack of privacy determine subjective experience of overcrowding, and that the experience of these interferes with ones behavior and mental health. They also found that housing has greater effect on mental health for women (Gove and Hughes, 1983). Fuller s study of psychological well being and household overcrowding in Thailand considers crowding as chronic stress which is accompanied by lack of privacy he found that wives who feel they lack privacy are more likely to contemplate suicide (Filfil, 2000). A study by Qouta, *et al,* (1997) on the mental health effect of house demolition in Gaza concludes that in traumatic conditions women's mental health is especially vulnerable, overcrowding generally is considered chronic stress.

1.16.7 The impact of overcrowding of Palestinian refugee camps on women 's health:

Palestinian refugee women lost the productive role they once had in their village community working with their fathers brothers and husbands in the fields. In the refugee camps their role is confined within the boundaries of their shelter, which affects their position and influence in society. Women and children suffer most from the lack of infrastructure and services such as sanitation, refuse disposal, water supply, roads and paths and electrification. And lack of communal spaces for social activities affect women for particular reasons (Budeiri, 1996). That is, women are more likely to remain within the confines of the home and camp for cultural and economic reasons which are both reinforced by the effects of overcrowding, women have greater responsibilities at home from running an over –burdened household, and limited economic opportunities. In Gaza 19 percent of the 139.910 refugee household are headed by a woman (Budeiri, 1996) overcrowding makes it more difficult for women to manage the home and carry out their multiple roles and responsibilities. It is more difficult to keep the home clean. Overcrowding in the home also jeopardizes women's privacy: the numbers of people in the home means that space is not available away from others. Similarly, the greater number of children and adults in the confined space of the home means those

continual demands and interruptions are the norm. These effects of overcrowding have serious bearing on psychological well being for women in the home. Further the home itself becomes more enclosed because of the encroachment onto the space immediately outside the walls of the home by other houses. A side from the basic (overburdened) services provided by UNRWA facilities in each camp, there are Women's Activities Centers in all but five camps in the West Bank. The facilities of the Centers are reported reasonable' but not sufficient to address women's needs in terms of the amount of space they provide. Despite the constricted environment of the overcrowded camps, the central location of social services such as education, health and relief within the established boundaries of the camps provide easy accessibility for women as they are always within their neighborhoods (Budeiri, 1996).

1.17 Objective of the study;

This research is made in a poor and overcrowded camp at Nablus City, which is Al-Ein Refugee camp or (Camp No.1) is an investigation of the women's perception of the effect of housing environment on their health and well being. Also to study the relationship between housing and women physical health, mental health and well- being .The relationship between housing and health can not be adequately evaluated without

considering the social environment and subjectively perceived physical and social environment, together they work to influence the health –housing relationship. This can not be done without examining the women's perception of the concept of health. This study identifies the key issues relevant to the impact of the environment on women s health. Most existing discussions of women s health have considered only briefly aspects of women's health outside of their reproductive health, so in this study focus will be on the effect of housing environment on woman 's health and well being.

Chapter 2

Methodology

Combinations of quantitative and qualitative methods are used to collect data in this study

Quantitative methods: Interviews were held with the women of the camp, a well-prepared and specially designed questionnaire aimed at obtaining responses related to interaction between housing and women s health was made and answered by each woman. Women in the interview were free to express their own thoughts, perceptions, and ideas. A woman perception of health is a reflection of her age and marital status. For these reasons three types of women were identified, young unmarried women, married women of childbearing age and older women married and unmarried. To facilitate entrance to the Camp community, women living in the camp helped in the entrance into the homes more easily. Choosing the homes to visit was randomly, by skipping 2 homes and the entrance of the third. To have a more representative sample, 150 women from different houses and different ages and marital status were interviewed and 150 questionnaires were answered precisely and freely. The women interviewed were either married (103) or unmarried (47). Of course some difficulties had to be

faced during the research fieldwork especially in informing people about the objective of this research. One of the difficulties was that most people had thought because of the very bad economic situation during Al-Aqsa Intifada, that the research will give them some help or funds and they were frustrated when they knew the truth. Regarding the qualitative methods: Interviews were held with more specialized people during the fieldwork from the camp and from Al Najah National University. To get more specific and detailed information a number of questions helped a lot to get clear information about the way of life in the camp, the type of facilities and services available, and the major problems faced by the women in the camp. Also information about the social effects of housing on women's health were collected during these interviews. People working in the health center of UNRWA were interviewed and gave information about the medical services in the health centers of the UNRWA, and talked about the major health and social problems faced by the women in the camp.

2.1 Tools of research

2.1.1Questionnaire

The questionnaire contain questions which include, information about the family, social and economic profile, housing and living conditions, the health profile, information relevant to women's health and well -being, and

woman's perception of health. All women were asked about the definition of health, and the effects of housing environment on health. Many of the questions were left open ended in order to allow for maximal utilization of the data obtained during the period of analysis. Special questions were made for married women and others are for unmarried women. Because each group has special needs and different roles in the house so they will have different relationships with their housing environment.

2.1.2. Statistical analysis

Data obtained from survey questionnaire during January and February 2002 was coded and entered into the computer utilizing SPSS software. The data was analyzed and cross-tabulated, and arranged into frequency tables, and comments were also analyzed. The questions are converted into variables, the coding book is used to give names for these variables. Main tests used in the statistical analysis of the data are: testing of statistical hypothesis(Null hypothesis) and Chi-square test .

Chapter3

Results and Discussion

3.1- The family social and economic profile:

Out of the 150 women interviewed, 103 are married and 47 are single, 48% of the interviews are conducted with the mother (72 women), 32.7% (49) are made with daughters and 19.3 % (29) with grand mothers. Regarding the job of the father, the result show 33 (22%) are employees, 28 (18.7%) workers, 4 (2.7%) are drivers, 54 (36%) don't work, and about 31 (20%) work in other different fields of work. Most of the women interviewed (136) (90.7%) are housekeepers, and 13 (8.7%) are employees. Most of the families have bad economic status with 42 (28%) have no source of income. Table 3.1 below demonstrates the level of family monthly income.

Table 3.1. Level of family monthly income

Income (NIS)	Frequency	Percent(%)	Valid percent(%)
0-500	62	44.8	42.9
600-1000	30	20	31.5
1100-2000	36	23.4	36.7
2200-3500	18	12.1	12.5
Total	145	96.7	100

Table 3.1 reflects a poor economic status of these families, many families lose their source of income specially during the Intifada, as many of the workers in Israel lost their jobs, and have no income to feed their families. This bad economic condition in the refugee camp exerts many effects on the health of the whole family, and on women’ s health in particular. No money means, poor housing conditions, bad facilities in the home with little or no helping devices that make the house work more difficult. The bad economic status also prevents the women from seeking medical help when needed, which have very bad effects on the health of the women and the whole family. Due to the bad economic status 17 families (11.3%) live with husband’s or wife ’s families, and can not move to live separately, this can cause many effects on women’s mental and physical health. Living with the husband or wife family will prevent privacy in the home because of the crowded conditions of the house. Also the woman will lose her freedom to do what she wants, without the imposed opinions from the others in her life .All these factors may be reflected on her health.

3.2 The family size

Average size of the family in Al –Ein Refugee camp is 8.06 members, The largest percent of the size of family 20% (30 of the families) have 7

members and 22 of the families (14.7%) have 8, while 20 (13.3%) have 6 members. The average number of males in the family from the data collected is 4 males. And average number of females is 4. Inspite of the increase of the percentage of nuclear families in the Palestinian society, the average Palestinian family size is 6.4. The average size of the Palestinian family according to the demographic survey conducted in 1997 is 6.1 in the West Bank, and in Gaza strip 6.9 family members (Palestinian Central Bureau of Statistics, 1998). The large family size especially in the camps is due to the high fertility rate which have bad effects on the family in general and on the women's status in the family in particular. The woman is the mother, the child caring, and the housekeeper, in addition to this she has the education role of the kids, care giving to the older and sick people in the family, even if she works outside the home she will be still responsible of all these duties. Sometimes she may be also the head of the house. Inspite of this hard role the decision making in the family is mostly done by the man.

3.3 Age profile of the family members

The age of the mother varies greatly in the families, 11.3% (17) are in the age group (19-25), 23.95% (36) in the age group (25-35), 34.1% (49) in the group (35-45) , 27.3% (41) in the group (47-60), and about 16.2 %(24) in

the age group (60-80) who represent the grandmother, as most of the families are extended families. About the age of the father in the family 14.7% (29) in the age group (24-35), 29.3% (44) in the group (36-45), 27.5% (41) in the group (47-60), 14.1% (21) in the age group (62-90). About the age of the biggest son in the family, 23.5%(35) in the age group between (1-10), 24.7%, (37) in the group (11-18), 32.8% (49) in the group (19-30), 9.4% (14) in the group (32-45). The age of the biggest daughter in the family, 87 (62.1%) in the age group, (1-18), 31 (22.1%) in the age (19-30), 15 (10.7%) in the age (31-38), and 7 (5.7%) in the age group (40-60). The great variation in the ages of the mothers, fathers, sons and daughters between different families is that some, families are extended families, in which the mother and father are very old, and others are nuclear families in which the mother and father are still very young. Looking at the previous data, 11.3% of the mothers are in the age group (19-25) while this age group is missed in the ages of the fathers. This reflect the early marriage of the girl which greatly affect her life, she will not continue her education, and have no opportunity to work. Also early pregnancy and childbirth could be harmful to the health of the young mother.

3.4 Housing conditions

3.4.1 Measurement of overcrowding

3.4.1.1 Area level measures are used to measure the density or overcrowding, the most commonly used indicator is Average in house living area/ person. Table 3.2 demonstrates the different house area in the sample.

Table 3.2. Range values, frequencies, and percentages of the area of houses

House area (meters square)	Frequency	Percent (%)
5-60	57	38.2
60-120	68	45.5
120-220	21	14
Total	146	97.3
Missing	4	2.7
Total	150	100

The average area /person in the houses of Al-Ein refugee camp visited is Calculated as an area level indicator of overcrowding which is 10.38 meters square per person. That indicator shows overcrowded conditions in the houses of Al –Ein Refugee camp, as the area available for each person is not enough to satisfy all his needs.

3.4.1.2 Room level indicators:

The number of persons in the housing unit divided by the number of available room is the internationally agreed upon tool for measuring housing density. In most cases density is defined as the number of persons per room, it is possible to identify areas that suffer from severe crowdness, namely areas where the number of persons per room is three or more. The number of persons /room in the sample is 2.68 person per room which indicate crowdness in the house. Compared to data available from the demographic survey conducted in 1995, show that the average number of persons per room in the West Bank and Gaza strip was 2.3, and it was 2.23 in the West Bank and 2.57 in Gaza strip. The highest housing density is in refugee camps of Gaza strip is 2.8 .The housing density of the camps of the West Bank is high compared to that in West Bank cities. Table 3.3 demonstrates the number of rooms in the house.

Table 3.3.Frequences and percentages of the number of rooms in the houses of Al-Ein Refugee Camp

Number of rooms	Frequency	Percent (%)
1 room	6	4
2 rooms	51	34
3 rooms	60	40
4 rooms	19	12.7
5 rooms	4	2.7
6 rooms	6	4
7 rooms	2	1.3
8 rooms	1	.7
9 rooms	1	.7
Total	150	100

Other room level indicators of house crowding are the bed crowding (the number of children that sleep in one bed, and number of children per bed room, Table 3.4 demonstrates the number of children that sleep in one room. Table 3.5 demonstrates the number of children that sleep in one bed.

Table 3.4 frequencies, percentages of the number of children that sleep in one room in Al –Ein Refugee Camp

Number of children	Frequency	Percent (%)
0-2	44	29.3
3	38	25.3
4	28	18.7
5	18	12
6	5	3.3
>7	6	4.1
Total	139	92.7
Missing system	11	7.3
Total	150	100

Average number of children per bedroom was found to be 3.56.

Table 3.5.Frequencies and percentages of the number of children that sleep in one bed in Al-Ein Refugee Camp

Number of children in one bed	Frequency	Percent (%)
0-1	52	34.7
2 children	23	15.3
3	7	4.7
4	1	.7
5	1	.7
Total	84	56
Missing system	66	44
Total	150	100

Average number of children per on bed is 1.38.

These indicators both on the area and on the room level reflects the overcrowding in the houses in Al-Ein Refugee Camp

3.5 The relationship between house overcrowding and women' s health

3.5.1 The effect of overcrowding on the married women

The results show relation between overcrowding of the home and women 's health, mainly on mental health. The data collected show that there is statistically significance difference in testing the relationship between the

married women' s feeling of privacy in their house and number of rooms, in the house, number of family, and the number of children that sleep in one room. Which all reflects the degree of crowdness in the house. Most of the married women interviewed suffer from lack of privacy in their house. The number of people in the house means that there is no private space available away from others. No one is able to do what she or he wishes in what is supposed to be private space. The result of this constricted feeling, is illness. Young, married women who live with their in –law extended families, feel deprived of privacy and a place of their own, they have to share everything with the rest of the household, they even cannot decide anything of their own lives alone. These stressful conditions may lead to problematic husband –wife relationship in which anger and frustration mostly due to the lack of space is in front of other family members and children. The crowding in the house may make the housework very difficult because the women have to manage space with housework which need longer hours. Mothers with many children have a difficult job in trying to meet all family members needs in a limited space.

3.5.2 Overcrowding and young unmarried girl 's health

The data collected show that, 17 girls (11.3%) of the total sample report suffering of certain health problems such as continuos headaches without

prominent reasons, and about (30.7%) of the total sample (46 girls out of 47 girls interviewed) complain of irregular periods. This health problem reflects the results of their stressful life in their crowded homes.

Young unmarried women think that they are severely deprived of privacy. Due to their youth, they need some kind of privacy to dress and to sleep as they wish. But this is impossible in the crowded house with multiple brothers and sisters all watching and commenting their behavior. Nineteen girls out of 47 (6%) of the total sample, report not inviting their school colleagues to visit them in the home, because crowded noisy homes are not suitable to offer privacy wished when peers visited. This situation as said by Fiasal Al-zaanuon (2003), may lead to frustration. And the feeling of social deprivation, and the girl may feel that she is not equal to her colleagues at school, which lead to mental disorders. Also due to the very limited space in the house, the parent 's problems and anger are always in front of children and other family members. These problems which are mostly caused because of the lose of privacy and freedom inside the crowded home, may have bad effect on the young girls who will look with fear to marriage in the future. On the other hand young girls may escape from all this by early marriage, in which she will not be prepared for the task of the housewife, this may lead to many physical and mental problems. Also girls are taught in the family to have their own role. According to

Al-zaanuon (2003), each of the boy and girl in our society are taught to know their specific role in the family and in the society. The girls are prepared to obey the orders and to do housework, while the boys prepared to decision making and to orders. Housework tasks in overcrowded house may be at greater risk of health problems such as home accidents.

3.6 Tenure of housing

It is well known that the ownership of the housing units in Camps belongs to the UNRWA. This is identified by many surveys, Wael Enab ’s study in 1987 indicate that 91.1% of West Bank camps households live in housing units rented from the UNRWA and that 97% of the land holding on which these units are constructed belong to the UNRWA (PCBS, 1997). The results show that 129 (86%) of housing units in Al –Ein Refugee Camp are the property of the UNRWA, but mostly the residents of the camp think that the homes are of their own.

3.7 House building material

The concrete bricks constitute a major construction material in Al-Ein refugee camp, 80% of the houses are built of concrete bricks, this may be because it is less expensive than stone, but also less powerful in insulation

and protection from humidity and weather conditions. Table 3.6 demonstrates, the houses building material in the study sample

Table 3.6. Frequencies and percentages of the houses building material in Al-Ein Refugee Camp

House building material	Frequency	Percent (%)
Reinforced concrete	14	9.3
Stone	15	10
Concrete bricks	120	80
Asbestos	1	.7
Total	150	100

3.8 Roof

Roof is intended to protect the home, it can be detrimental to the well being of residents, if it is not properly installed and maintained. The roofing materials themselves, poor ventilation and the type of insulation installed under the roof, may all affect the pollution level in the house. Regarding the roof’s material, 65 houses (43.3%) are made of concrete, and 85 houses (56.7%) are made of reinforced concrete. The roofs made of concrete are mainly found in the very old houses. Eight (5.3%) of the houses suffer from water leakage from the roofs and the walls. Which generally had less

protection and insulation. This may increase the possibility of pollution and humidity in the house, which is harmful to health.

3.9 Ventilation and lighting

Concerning ventilation of the house, 72 houses (48 %) have one window, 75 houses (50%) have 2 windows, and 3 houses (2%) have no windows. This result reflects that many of the houses are poorly ventilated that one or two windows are not enough to ventilate the house. Bad ventilation in the house causes dampness, which predispose adults and children to tuberculosis, allergies, respiratory infections, nausea stomachaches and vomiting. 115(76.7%) of the women interviewed were asked how they can solve the problem of bad lighting and ventilation in the house, they said that they may open the door to solve the problem. Opening of the door will create other problems, such as the loss of privacy, increase dust in the house, noise from outdoors. And will be a source of pollution to the house, this will affect the women 's health by different ways, because of dust she will have more workload in cleaning the house, loss of privacy have bad mental health effects on the women. Also the children will not be protected from accidents when the door is left open, all of this will exerts stress on the women inside the house.

3.10 Living conditions

3.10.1 Health facilities, water resources, and drainage system

In order for a housing unit to be adequate for living purposes, basic necessities such as the presence of drinking water installations, toilet facilities and electricity should be available. It was found that all of the houses have indoor and private health facilities, no outside toilet, and no shared toilets were recorded. This is considered a good condition that protects the women and children who spent most of their time at home, from many health hazards. Shared toilets are inconvenient, particularly for women and even more for a women with children, that women will be forced to use the neighbor’ s toilet, which is very hard and stressful especially during the night. Presence of inside toilet will protect the women from the stress of getting outside the house especially in cold weather, which may cause illness. 145 of the houses (96.7%) get water from a water network supplied by the municipality, the rest of the houses use wells as their water source. All of the houses are connected to a sewage network and no cesspool was recorded in this study. The available sewage system impacts the public health and surrounding, as the sewage network in the camps need upgrading, flooding of the wastewater in the streets and contamination of drinking water with sewage is common in the camp. A nurse in the camp health center reported that, in the last period there were

many cases of diarrhea in the camp because of the contamination of drinking water with the sewage water, which constitute a major health problem to the entire family members. Which lead to many gastrointestinal diseases for both children and adults.

3.10.2 Heating system

Homes can be heated and cooled in a variety of ways. Each type of system has advantages and disadvantages depending on the type of system used and the kind of fuel. As the women are the main user and carer of this system, they are exposed to different health risks especially in a poorly ventilated house. This is due to the exposure to combustion pollutants which are the gases and particles made by burning any fuel such as wood, natural gas, kerosene, and charcoal which are the main sources of energy used in Al-Ein Refugee camp. Sources of combustion pollutants in the home are unvented combustion appliances, which include most gas stoves, kerosene heaters, and charcoal grills, that can produce high indoor levels of air pollutants because they release combustion pollutants directly into the home. Using charcoal grill indoors or using gas stove or oven for home heating can produce especially high levels of indoor air pollutants. Vented combustion appliances**,** which include most furnaces, wood stoves, fireplaces, gas water heaters, and gas clothes dryers, usually vent (exhaust)

the combustion pollutants directly to the outdoors. However, if the vent system is not properly designed installed, and maintained, indoor pollutants can build up quickly inside the home. The major indoor combustion pollutants are carbon monoxide (CO), nitrogen dioxide (NO2), particles (PM10), and polycyclic aromatic hydrocarbons. At elevated levels, carbon monoxide causes headaches, fatigue, and at very high levels, brain and heart damage and death. Other combustion pollutants can cause eye, nose, and throat irritation, and serious lung disease, including cancer. Smoke from wood burning contains a particularly toxic combination of many pollutants that can cause cancer or irritation. Women (due to the long time of exposure), Young children, people with asthma, people with heart or lung disease, and people with anemia are especially vulnerable to the toxic effects of combustion pollutants. Malfunctioning and improper use of gas stoves, wood burning, kerosene heaters, charcoal grills, and poor ventilation all result in women's health hazards.

The sources of energy used for heating during winter in Al-Ein Refugee Camp are varied. Some households (109 houses) (72.7%) use kerosene, gas, or electricity, others (41 households) (27.3%) use cool, wood or other matters. 73 households (48.7%) uses gas as a source of energy for boiling water to be used for bathing and cleaning.

There are statistically significant differences in the distribution of houses in Al – Ein camp in accordance with energy forms for heating water. Table 3.7 is a summary of the sources of energy used for boiling water in the camp.

Table 3.7 Frequencies and percentages of source of energy used for boiling water

Source of energy	Frequency	Percent (%)
Kerosene	10	6.7
Gas	73	48
Electricity	21	14
Wood	17	11.3
Other	28	18.7
Total	149	99.3
Missing system	1	.7
Total	150	100

(chi square = 83.987, Degree of freedom 4, level of significance=0.000)

3.10.3 Environmental pollution

The women interviewed were asked about the types of environmental pollution in their area, such as noise and dust pollution. 5 (3.3%) reported suffering of some kind of noise pollution, while 145(96.7%) have no source

of noise pollution. So the noise pollution doesn’t form a problem to women in Al –Ein Camp. This may be because they used to tolerate certain degree of noise. Regarding dust pollution only 8 (5.3%) reported suffering from dust source. An important environmental issue in the camp is the way of waste disposal. Many women in the study mentioned that, there are no environmental problems in the way of solid waste disposal in their camp. 145 (96.7%) reported that solid wastes are disposed in the right and healthy manner. The situation is not as they mentioned. The houses are not provided with closed containers for outdoors-waste disposal. When solid wastes are disposed of outdoor, they create more environmental health hazards, as the constricted spaces between homes make it difficult for garbage removal by vehicles to operate and severe shortage in sanitation workers in the camp. During the fieldwork large piles of garbage were accumulating and this may cause the spread of insects and rodents, and represent health hazards, and can be considered as a source of considerable frustration.

Regarding domestic animals in the house, only 19 (12.7%) reported having some kind of animals such as chicken or pigeon. The presence of domestic animals in the house could be a source of infection to family members. There are significance differences in the perception of women of the presence of environmental health problem or not, in Al- Ein Camp.

Most of women think that there is no environmental problems because they don't know actually what is meant by environmental problems, in their opinion when their house is clean and tidy and there is no problem at all. Table 3.8 demonstrates the perception of the women about the existence of environmental health problems

Table 3.8 Frequencies and percentages of the women 's opinion about the existence of environmental problems

Environmental problem	Frequency	Percent (%)
Yes	43	28.7%
No	107	71.3
Total	150	100

(Chi-square =27.307, degree of freedom 1, level of significance 0.000)

3.10.4 Safety in the overcrowded homes of the camp

Regarding safety measures inside the house, 109 (72%) women reported having no safety for their children. Most of the houses has very high stairs without protection, improper lighting inside the home with crowding. All these factors affect safety within the home in different ways. Women and children are at risk of accidents in the home including burns, electrical shock, falling from unsafe stairs, and injuries from broken glass. The constricted space in the home means no safe storage space for chemical

cleaning products, with no safety precautions, and where children access to them. Increased number of persons in the house using health facilities can lead to health risk burdens of toilet facilities. Also the safety of kitchen facilities decreases when they are used in overcrowded homes. Lack of playground in the camp, as usually children escape to the street, increases the risk of car accidents, and causes anxiety to the mothers.

3.10.5 Health services

94 (62.7%) of the families in Al –Ein camp receive health services from the camp health center of the UNRWA, while 51.34% from general clinics, and 5 (3.3%) from others. 90 (60%) of the families have health insurance. The high rate of visiting the health center of the camp by most of the families is mostly due to economic reasons because the health services are free in the camp health center and the families pay nothing for medical service. The refugees have to pay 25% of the costs of the hospitals or for medical operations. Exception of this is offered for special social issues in which refugees have to pay only 10% of the costs. Also the high rate of visiting the health center of the camp due to their nearest to the families in the camp. Camp health center of the UNRWA provides the following services: primary health care, mother and child health such as prenatal care, postnatal care, childcare, and family planing services. Also the camp health

center provides medical care services and physical therapy, but there is a lack in the mental health care for cases of drug addiction, and cases of violence especially against women in the camp, who need physical and mental care. The director of Al-Ein Camp reported that, social integrated work is missed in the camp health center, there is a great need for experienced professionals especially in the mental and social field. Table 3.9 demonstrates the rate of women 's visiting clinics, there is a statistically significance difference in the rate of visiting health centers by the families of Al-Ein refugee camp.

Table 3.9 Frequencies and percentages of women's visiting of health centers

Rate of visiting health centers	Frequency	Percent(%)
Monthly	71	47.3
Bimonthly	26	17.3
More	53	35.3
Total	150	100

(Chi square 20.52, degree of freedom 2, level of significance 0.000)

3.11 Woman in Al – Ein refugee camp

3.11.1 Age profile and marital status

30 (20%) of the women interviewed, are up to age of 19, 41 (27.3%) between 20-29 years old, 27 (18%) are between 30-39years old, and 52 (34.7%) are 40 years old and more. 86 (57.3%) of these women are married, 44 (29.3%) are single, 16 (10.7%) are widows, and 4 (2.7%) are divorced. Compared to information from demographic survey in the West Bank in the period (1991-1995), about the women marital status, 57.9 % of women in the West Bank are married, 32 % are single, 0.8% are divorced, 8.7% are widows, 0.6 % are separated. These results are almost similar to the results of this study with some little differences. Inspite of the hard living conditions of the women in the camp there is some kind of familial strong relationships, and the percentage of divorce is low in the camp. These close percentages between the West Bank, and Al-Ein Refugee Camp reflects the similarities of the living conditions of woman in Palestinian society, which are related to the same political situation under occupation.

3.11.2 The level of women 's education

The level of education of women in Al -Ein camp is very low. 22 (14.7%) of the sample are illiterate, 72, (48%) are of primary education level, 25

(16.7%) are of elementary education, 15 (10%) secondary (Tawjihi), and only 16 (10.7%) have education more than Tawjihi. The most prominent reason for this is the early marriage of the girls. In the Palestinian society about 24% of women in the age group (15-19) are married, the percentage of men married in the same age group is only 2%. Early marriage had many bad effects on the women. It prevents her from completing her education, or her participation in jobs. This will result in early childbirth, which have bad health effects on the mother and child. Statistics in this subject show that the median age for marriage for girls in Nablus City is 18, while the median age for men is 24 (PCBS,1998). The living conditions, and the housing environment, in which the girl live, may greatly affect her marriage decision. Living in overcrowded house with multiple brothers and sisters without any kind of freedom or privacy, in poor economic condition, may force the girl to escape to early marriage, and leave her school very early. The director of the camp reported that the total number of students in all stages in Al-Ein camp is 1278 students, 51.4% (657students) are girls. There are 60 university student in Al – Ein refugee camp, only 23 (38%) of them are females. The percentage of males that complete their higher education in the university is 5.9%, while only 3.5% of females get university education. Compared to the percentage in the West Bank and Gaza strip in general, only 2.4% of women get higher education, and 6.1%

of men continue higher education. Regarding the literacy rate, it is 91.7% for the males, and only 76.3% for females in the West Bank. According to the place of resident, literacy rate of males is, 91.7% in camps, 90.6% in villages, and 92.5% in cities. For females, the literacy rate is, 77.4% in camps, 72.2% in villages, 81.8% in cities, the literacy rate of women in Al-Ein Refugee Camp is 85.3 % which is higher than the literacy rate in the camps. So there is a higher rate of education for boys than girls in the west bank this may be due to the early marriage of girls, and that most families prefer to educate boys rather than girls (PCBS, 1998).

3.11.3 Briefing on the way of life and social profile of married women and the young girls in Al-Ein refugee camp

One hundred and seven out of 150 women are married, most of them are married at early age between (16-18), 93 (62%) of them are the first wives, while 8 (5.3%) are the second wives. Multiple marriage is a feature present in Palestinian society, about 3% of men are married to two wives or more in the West Bank (PCBS, 1998). Most of multiple marriage had bad effects on women, mainly economically as the first wife and her children, mostly neglected from the husband, and she will be responsible for their living. Which will exert a great stress, mentally and economically. Inspite of that the residents of Al-Ein Refugee Camp take Islam as their religion,

they do not obey the orders of Islam. When Islam permits the multiple marriages for men, this permission is restricted for specific conditions and reasons, and when equality can be achieved between the wives (Shaer, 2002). One hundred and thirty six (90.7%) of the married women in the camp are housekeepers. Only few who have the opportunity to go out for work, so most of the women spend most of their time in doing the housework such as cleaning the house, washing clothes, cooking for the family, and taking care of children, after the men go to work. Also women may go to make shopping to bring the needs of the family. Seventeen (11.3%) of the women in the camp live with extended family in overcrowded conditions, and she must serve the whole family, and to do all the work. During the study work many women in special interviews reported that they take care for old patients in the family, increasing their workload. Women in the camp neglect themselves and their health for the family, they have no time for rest, or even a time of their own. Young unmarried girls spend their time between school and study in the house. They suffer from the great need for changing the routine, and to have the freedom to go out. Thirty one out of 47 (65.9%) of the girls mentioned that they can go out of the home but with restrictions. These restrictions are not present for their brothers. When the girls are asked about the reason they said because they are not boys. Sixteen girls out of 47 see that their

brother’s demands are more respected than theirs are just because they are males. They have to obey the orders, and to help their mother in housework.

Family violence is prevalent in Palestinian society and badly needs necessary measures to encounter this phenomenon in order to reduce it (Shaer, 2002). Women in Al-Ein Camp are exposed to different types of violence such as physical violence, there is a great number of women in the camp are beaten or even killed by their husbands or brothers. Workers inside the camp clinic reported many cases of physical violence against women (about 2-3%). Mental and psychological violence is also present, such as preventing the girl from her normal rights such as, education and work, forced marriage at early age, and some women are treated very badly and have no respection from the males in the family. Violence against women is a result of frustration and hard life in the camp. Men, who practice violence against women, may be frustrated losers, or deprived from care and feel that violence will prove that they are men in the family. Violence may due to environmental, social, and economic factors. Living with the extended families, who will share in every familial decision, will cause the problem to worsen. Drug addiction that is prominent in the camp leads to violence. Violence may due to the way of familial treatment of the problems of violence and inequality between girls and boys from childhood

(Shaer, 2002). All this because they are far from their religion Al- Islam which orders equality and respect between man and woman in general. Islam identifies to both their rights and duties, and the shape of relationship between them that is must have support, empathy, harmony, and stability within family and close relationship. Surely Islam is innocent of this violence against women and when people obey the orders of God they will live a simple and quite life with love and respect (Shaer, 2002).

3.11.4 Health profile and reproductive health of married women

The fertility of the Palestinian women in general, is high. The total fertility rates in the West Bank and Gaza Strip in the period (1990-1995), is 6.06, in Nablus City. The total fertility rate in the year1995 is 5.01. High fertility rate of Palestinian woman is due to, low educational level, early marriage and childbirth, no correct family planing, and short spaces between births. Concerning reproductive health of women in Al-Ein camp, information from a nurse working in the health center of the UNRWA, that there is no correct regular use of family planing methods by the women. Family planning methods used mostly are the coil and bills. The percentage of the use of the pills in the camps of Palestine in general is 6.8%, and the coil 24.4%. The knowledge of Palestinian women about contraceptives exceeds 98%, but the proper use of them is only 45% (PCBS, 1998). The social

believes, customs and sometime religion, are important factors in not using contraceptives by the women. Regarding birth spacing, 43 women (28.7%) report 2 years period between births, 20 (73.3%) 3 years interval, 9 (6%) 1 year. There is a noticeable degree of abortion in the camp with 59 out 102 (39.3%) reported experience of abortion, and 43 (28.7%) didn’t, 23 (15.3%) reported having 1 abortion, 19 (12.7%) report 2 abortions, 7 (4.7%) reported 3 abortions, 4 (2.7%) reported 4 abortions, and 5 (5.5%) have 5 abortions. Which is a high percentage of abortions. This reflects the bad health status of the mother, and neglecting of health by the mother and the family. 61 women (40.7%) reported having care during pregnancy while 41 (27.3%) report no care, with 37 (24.7%) suffer from pregnancy complication which is a high percentage which reflects the poor level of care of pregnant women and can be prevented by proper care during pregnancy and after childbirth. A nurse working in the health center of the UNRWA in the camp reported that there are a high percentage of abortions, and complications during pregnancy and after birth, large number of anemic mothers, and children with inborn diseases, such as spina bifida. This situation may due to economic reasons, or the neglecting by the mother of her health, as the mother live for the family and the house, and forgets anything about her own health and have no time to rest especially when she lives in improper housing. Overcrowded house will exert stress

on the women and increase her workload to manage space with person 's needs. Also house without safety measures and high stairs and bad lightening, could lead to accidents that lead to pregnancy complication and even abortion, also bad ventilation and humidity could lead to major health risks to the mother and the fetus. (5.3%) of the families reported children death in the family in the last 5 years of their life.

The causes of child death vary, from sudden infant death after 8 hours of delivery, as some infants dies because of certain diseases. A mother reported that her baby girl of 17 days old dies because of cerebral edema. Other reported death of child because of cerebral paralysis, others of pneumonia, a mother reported death of 6 months old baby because of kidney failure, 2 months baby because she was very ill (as her mother said). Other reasons also were reported, such as death because of choking and suffocation, or falling over a high level.

The answers of special question that was asked for the married women about their major health problems are summarized in Table 3.10

Table 3.10 Frequencies and percentages of major health problems of married women in Al-Ein Refugee Camp

Health problem	Frequency	Percent (%)
Back and neck	19	12.7
Chronic disease	41	27.3
Teeth problem	30	20
No illness	13	8.7
Total	103	68.7
Missing system	47	31.3
Total	150	100

As shown in Table 3.10, that the percentage of healthy married women is very low 8.7%, which reflects the pressures exerted upon the married women in the society of the camp. There is a high percentage of chronic diseases, mainly diabetes and hypertension, and many women suffer from back and neck problems. This may be caused in part by the hard role of the women inside unsuitable housing, and fighting to meet the needs of all members of the family, while her own needs are neglected. So the normal results of working a very hard housework in an overcrowded house, and sometimes with the extended family, without any kind of care or rest, are

health problems. A question which is a reflection of health care of the teeth, about visiting the dentist regularly show that most of these women do not visit the dentist regularly, 83 out of 103 (55.3%) see that there is no need for that which reflect the self neglect of the woman.

3.12 Relationship between housing and married women's health

The data collected indicated that the majority of homes in Al-Ein refugee camp are unhealthy ones. By testing the hypothesis that there is no statistically significant difference in the distribution of homes between healthy and unhealthy ones, and by applying one-sample t-test on the building material, roof material and the heating system used in the house. The results show that the significance level is less than the value in the hypothesis 0.05 so we reject the hypothesis. Examining the relationship between illness of married women with the status of the building, Table 3.11 demonstrates the relationship between the illness of the married women and the building status

Table 3.11.the relationship between married women's health and building status

illness	Healthy house	Unhealthy house
Back and neck	11	19
Chronic disease	26	41
Teeth problem	18	30
No illness	7	1
Total	62	103

(Chi squuare=17.816, degree of freedom =3, level of significance=0.000)

The previous table show that there is a relationship between married women's health and the housing conditions, that the worse the house, the more are the diseases and health problems are, such as neck pain that is in general more common in women. And in those involved in jobs that are mentally and physically stressful. Repetitive use of the upper extremities by the women during the hard housework in overcrowded house results in neck problems. Neck pain may be also a symptom of other underlying disease. Neck pain usually arises from simple events common to the women daily living such as: Straining the neck/shoulder muscles while, lifting weights, or moving items around the house and lack of rest (Arien *et al*, 2000). Back pain is also common among women in the camp, which has

many causes, including overuse, trauma, degeneration of vertebrae, infection, or tumor. The hard work of women in poor housing with very little helping devices, and multiple children, Faulty habits in sitting, standing, walking, or lifting are often the precursor to pain, no time for rest and no exercise, all lead to back pain (ACR, 2002). Stress exhaustion is also a grave danger to woman's health , Medical research is seeing a direct link between diseases and stress, poor housing is a major cause of stress for women, in addition to hard work, the women in overcrowded , old house with cracks and badly ventilated humid rooms, with lack of privacy exert great stress on the women that depresses the immune system which protects them against diseases and cancers. Stress exhaustion is a major factor in mental illness. There are many conditions are likely caused by stress. Such as psychological distress, heart disease, chronic fatigue, anxiety, high blood pressure is a common disease between women in Al-Ein camp that can be stress related, (AIS, 2003).

3.13 Women's perception of a healthy house:

There is statistically significance difference in the attitudes of women in Al-Ein camp toward the perception of distribution of houses between healthy and unhealthy one. The following table 3.12 demonstrates these results.

Table 3.12 demonstrates women’s perception if their houses are healthy or not;

The answer	Frequency	Percent(%)
Yes	100	66.7
No	50	33.3
Total	150	100

(Chi square = 16.667, Level of significance = 0.000)

So from the table, most of women in the camp thought that their houses are healthy, which reflect some kind of low perception of the status of a healthy house .The houses according to the data collected, are considered crowded, exhausting, with lack of privacy. And most of them are not well ventilated, old buildings, with cracks in the walls, and lack of safety measures, and the women don’t perceive what are the conditions of a healthy house, such as enough space, proper ventilation, safety, etc.

.

3.14 Woman’s perception of the effect of housing on her health

The vast majority of women included in the study, 145 women (96.7%) agreed that there is a great effect of housing on health and well – being. So there are statistically significant differences in the attitudes of women in Al-Ein camp, towards the existence of a direct effect of the house on

health. Which means the presence of a high degree of agreement on the existence of a direct effect of the house on health. The perception of the effect of housing on health is accessed by asking the women about the relationship between, house building material, ventilation and humidity, and crowding in the house with health.

3.14.1 The perception of women of the effect of house building material on health

About 50 women (33.3%), see that the old building of greatly cracked walls and roofs, is unhealthy house, and that they suffer from fear of the fall – down of their old house, which make the women always stressed and anxious. For these women, they perceive that, the old building doesn’t directly cause diseases to them, except fear, and anxiety and sometimes poor sleeping. To have a new house or make improvements in the old one is not possible for most of the families, mainly due to economic reasons. Structural improvements of the house are a decision of the man in the family, and mostly women are not decision-makers in the family. Which greatly affect women’ s mental health and cause frustration.

3.14.2 The perception of the effect of ventilation and humidity on health

There is a high agreement of the women that the humidity and bad ventilation has bad effects on health. 115 (76.7%) explains that humidity and bad ventilation results in diseases such as respiratory asthma, others said that bad ventilation will cause more easily spread of communicable diseases. Other women said that dampness can cause arthritis and joint pain. There is a statistically significant difference in the significance level 0.05 between the attitudes of women in Al-Ein camp, towards the existence of harmful effect of the poor ventilation of the house on health. Most of the women perceive this relationship between housing humidity and health. Table 3.13 demonstrates the perception of the effect of ventilation and humidity on health:

Table 3.13. Frequencies and percentages of the women perception of the effect of humidity on health

The answer	Frequency	Percent(%)
Yes	146	97.3
No	4	2.7
Total	150	100

(Chi square=134.427, Level of significance = 0.000)

3.14.3The women's perception of the effect of crowding in the house on health

One hundred and fourty six of 150 interviewed (97.3%) think that crowding increase spread of diseases. Because of no clean air, that will result mainly in the spread of respiratory illness. 28 (18.7%) think that crowding also cause lack of privacy. Most of the women perceive that, crowding in the house means, no freedom to do anything of their own without the interruption of other family members. That causes them to be depressed and frustrated. Also many women in the study said that the overcrowding of the house with no storage space, leads to accumulation of things, that lead to increase rate of home accidents, specially for women and children as they spend most of their time in the house. 123 (82%) see that narrow and overcrowded house make house work more difficult and exhausting. That it takes much time for the women to manage the housing work, and family members needs with the available space .All of these women's perceptions reflect that overcrowding exerts great effect on their health physically and mentally.

3.15 Women 's perception of the concept of health

Women play key role in determining the health of all the family members, so her perception of health will determine the health and well being of all

members of the family. Women interviewed were asked how they understood the concept of health. Women of different ages and marital status expressed different perceptions of health. These perceptual differences are related to that the different roles the women play, as well as other factors such as education or wealth.

3.15.1 The perception of young unmarried women of the concept of health

Sixteen out of 47 of the girls define health as absence of disease, 8 girls link health to certain health practices such as sanitation. Eight Girls said that the healthy outlook of the person is good health. Other 7 Girls define health as good environment and nutrition. Two Girls linked health with healthy housing. Nine Girls said that health is protection from disease, only one girl in the sample said that she doesn’t know the concept of health. These results reflect some acceptable level of perception of health of young- unmarried women. As they perceive that health could be more than the absence of the disease, and relate health to healthy life style and sanitation, and see that the health of the family is the responsibility of the mother. Some young women particularly those who are still at school 44 out of 47 (29.3%) blamed uneducated mothers for unhealthy practices that make the children sick. These girls in school also see the link between

education and health promoting practices. They said that educated mother can protect her children from many health problems, by knowing how to feed them the healthy food, and to have healthy practices such as washing hands and teeth, and to teach her children these healthy practices. Their point of view is definitely correct, a well –educated mother will have healthier children, and she will plan her family in away that every one will take his right of care and attention.

3.15.2 The perception of married women of the concept of health

Most of married women (36 women) define health as absence of diseases. Eighteen women link health to healthy practices such as sanitation. Other women (9) understand the concept of health in different way. They said that health is the most important thing in the world, health is security, and like the crown on the heads of healthy ones, on the other hand some (8) women said that health is good environment and good nutrition. Other 6 women understand health as satisfaction and happiness. Four married women who link housing to health express the relationship between housing and health. Four women said that health is good economic status, other (4) said that health is external outlook of human-being, 2 women see that health is protection from disease, only 4 women don’t give any answer of the meaning of health. The women in their perception, they

link health to absence of disease, security, satisfaction, richness, and safety, so they link health to everything in their life.

The relationship between husband and wife is important part of women's perception of health and well – being. The married women in the study were asked in special interviews about the effect of the care or neglecting from the husband on their health, all of the married women (103) reported that, when the husband is loving and caring, a woman feels good and find herself relaxed and happy. When the husband neglects his wife and the needs of the household, the woman feels deprived, unsatisfied, and stressed. Women frequently reported that quarrels with husbands negatively influenced their well being. Some complain that their husbands do not understand their needs, and do not respect them. Violence is practiced against women in different ways from the husbands in Al-Ein camp, that will lead to great health problems to the women.

Chapter 4

Conclusions and Recommendations

4.1 Conclusions

This research was performed to study the relationship between women’ s health in Al-Ein refugee camp and their housing conditions. The place of study is characterized by poor and overcrowded housing. The families live in poor economic conditions. Average size of the family is 8.06 members. Most of the families are extended, and this causes the life of women to be more difficult. Women in Al-Ein refugee camp have low level of education mainly due to early marriage and childbirth that have harmful effects on the mothers and child’s health, in addition to suffering from different types of violence physically and mentally. This study revealed the women’s perception of the effect of housing on their health. This can not be done without the understanding of women ’s perception of the concept of health. Women show different opinions of the meaning of health. As they perceive, most women define health as the absence of disease, others relate health to sanitation, and others define health as the good external outlook. On the other hand some women see health as safety, ability to live a normal life, good environment and good nutrition. Young women in the sample said that the education of the mother is very important determinant of the

health of the whole family. There is a great agreement by women, that there is relationship between housing conditions such as humidity and ventilation and health, and that overcrowded house increase the spread of diseases and the very small house make the housework more difficult in managing space with time and household members. The houses of the camp are crowded, poorly ventilated, are built mostly of concrete and bricks, most of the houses are the property of the UNRWA. All of the houses have indoor toilet and health facilities and connected to water network and electricity. The level of crowding of the houses was measured by means of crowding indicators, at area and room levels. At the area level the average area per person is 10.38-meter squares per person. At the room level, number of persons per room is 2.68, and the average number of children that sleep in one room is 3.56. The average number of children that sleep in one bed is 1.38 (bed crowding). These calculated indicators indicate overcrowded conditions in the houses of Al-Ein refugee camp. Crowding has effects on women’s health especially mental health. The results show a significant relationship between crowding and suffering from lack of privacy and frustration.

4.2 Recommendations

- Control should be made on the quality of construction standards in the camp and provide enough site engineer for this process of control.

- Swage network in Al-Ein Refugee camp need upgrading
- The problem of waste disposal in the camp needs asolution , as the vehicle can not enter the narrow roads of the camp to collect the accumulated wastes
- More attention should be paid to to safety inside the home , protected stairs, enough light source , storage spaces for dangerous materials , and playing places for children to protect them from accidents .
- Improvements of the camp health center to provide better prenatal and postnatal care, and social work.
- Housing polices should take into consideration , the women's needs in design of the home , furniture , facilities .
- Increase funds and support to deliver environmental health and medical education for women in the camp , also information about the health hazards of cleaning products and heating system in a clear way.

References

Abu Libdeh, Hasan, (1993), "Population Characteristics and Trends", In Heiberg, M. and Ovensen, G. Palestinian Society in Gaza, West Bank and Arab Jerusalem: A Survey of Living Conditions. Oslo: FAFO Report 151, pp. 35-48.

Abaleron, C. A., (1995),"Marginal urban spaces and unsatisfied basic needs:The case of Bariloche, Argentina ", (Environment and urbanization) 7(1) : 87-96, APRIL.

American College of Rheumatology, (2002), article on"back pain", available on the world WebPage: http://www.rheumatology.org/patients/factsheet/backpain.html.

American Institute of stress, (2003), "stress", available on the world WebPage , http://www.reutershealth.com/well/ connected /doc31.html.

American Lung Association (ALA), The Environmental Protection Agency (EPA), The Consumer Product Safety Commission (CPSC), and The American U.S. Government Printing Office Publication,(1994),"Indoor Air Pollution: An Introduction for Health Professionals" available on the world webpage: http://www.epa.gov/iaq/pubs/hp/guide.html/asbestos.

Ariens GA, Van Mechelen W, Bongers PM, Bouter LM, Van Der Wal G. (2000), " Physical risk factors for neck pain". Scandinavian Journal of Work, Environment and Health.

Bellisari, Anna (1994)."Public health and the water crisis in the occupied Palestinian territories", Journal of Palestine Studies, Xxiii (2) (winter), pp. 52-63.

Bhatt R. (1967), "Why do daughters die", In search of our Bodies: a Feminist Look at Women, Health and Reproduction in India (Edited by Bhate K., Menon L., Gupte M., Savara M., Daswni M., Prakash P., Kashyap R. and Patel V.) Shakti, Bombay.

Budeiri, Muna Z. (1996) . "The habitat situation of Palestinian Women", In Women and Human Settlements in Conflict Zones, Proceedings of the Second United Nations Conference on Human Settlements, Habitat II, 11 June, 1996, Istanbul, Turkey
.

Burden, R., (1979), "The forgotten environment", in HINkle, L., E., and Loring, W. (edt.) The effect of man made environment on health and behaviour, DHEW publications, Atlanta, GEORGIA, PP. 45-64.

Bradley, D., Stephens, C., Harpham, T., and Cairn cross S. (1992). " A Review of Environmental Health Impacts in Developing Country Cities". The World Bank, p. 6.

Carr-Harris J. (1992), "New Dimensions of Echo – health". Eco - health series, south –south solidarity, New Delhi.

Clauson-Kaas, Jes, (1996). "Urban health: human settlement indicators of crowding", Third World Planning Review, 18 (3), pp. 349-63.

Dankelman I. and Davidson J. (1989) "Women and Environment in the third World: Alliance for the Future". Earthscan, London.

Dodson. A, AIA (1999), " Building for your health", New life journal article, available on the world webpage
http://www.newlifejournal.com/backissues/1-buildforyourhealth.html

Doughty, Dick (1996). "Listening in Gaza", Journal of Palestine Studies, XXV, no. 4 (Summer), pp. 69-86.

Filfil M., (2000), "The Housing Environment and Women's Health: The case study of Ramallah Al–Tahta". Institute of Community and Public health, Birzeit University.

Giacaman, Rita (1994). "Health Conditions and Services in the West Bank and Gaza Strip", A paper prepared for UNCTAD.

Giacaman, Rita, Jonson. Penny, (2002). "Inside Palestinian households (initial analysis of a community-based household survey", institute of Women s studies at Birziet University, in cooperation with institute of community and Public health, Birzeit University, Palestine.

Gove, Walter R. and Hughes, Michael (1983). "Overcrowding in the Household: An Analysis of Determinants and Effects". Toronto and New York: Academic Press.

Halliday, IL (1995) "An inquiry into the relationship between housing conditions and the incidence and fatality of measles", London: Medical Research Council, Report Series No. 120.

Healthy roads, (2000), a report on "neck pain", available on the world WebPages: http://www.healthyroads.com/mylibrary/data/asref/htm/art_neckpain.asp

Heiberg, Marianne and Ovensen, Geir (1993). "Palestinian Society in Gaza, West Bank and Arab Jerusalem: A Survey of Living Conditions", Oslo: FAFO Report 151.

Hoadley, A. W. and Cook, R. (1992). "Status and Needs of the Water and Sanitation Sector in the Gaza Strip". New York: UNRWA.

Issam A. Al- Khatib, Ahmad Ju'ba, Nadine Kamal, Nihad Hamed, Nuha Hmedan and Salwa Masad, (2003), "Impact of housing conditions on the health of the people at al-Ama'ri refugee camp in the West Bank of Palestine", International Journal of Environmental Health Research 13(4), 315-326.

Kasl, S., (1979), "The effect of residential environment on health and behavior", a review, in, Hinkle, L. E. and Loring, W., (eds.) the effect of environment on health and behavior, DHEW, 1979, Atlanta, Georgia, pp. 65-128.

Kettel B. (1993), "New approaches to sustainable development", Can. Woman Stud. 13, 11.

Kettle B. (1996), "Women Health And The Environment", Faculty of Environmental Studies, York University, North York, Ontario, Canada, M3J IP3, Copyright Elsivier science Ltd.

Lewis N. and Kieffer E.C (1998). "The health of women: beyond maternal and child health", in health and development (Edited by Verhasselt V. and Philips D.) International Geographic Union Commission on health and development. Routledge, London.

Mansour, Khaled (1998). "The housing crisis in the 'Homeland' refugee camps: implications and prospects of solution", paper presented at a conference on the Housing Crisis in Refugee Camps, by Shaml Center, Ramallah, West Bank.

Marshy, M., August (1999), "social and psychological effects of overcrowding in Palestinian refugee camps in the West Bank and Gaza", Literature Review and Preliminary Assessment of the Problem. International Development Research Center.

Mirth, B., Dec. (1989), "Housing and health policy and practice in urban housing project for low- income families", (Health for Millions, pp. 5-10.

Munro M. and Madigan, R., (1993), "privacy and the private sphere" housing studies 18(1): 29-45.

Palestinian Central Bureau of Statistics, (2000), "Health Survey–2000: Main Findings ", Ramallah, Palestine.

Palestinian Central Bureau of Statistics, (1997), "Housing Conditions in the West Bank and Gaza Strip, Current Status Report Series, No.6", Ramallah, Palestine.

Palestinian Central Bureau of Statistics, (1998), "Man and Woman in Palestine, Directions and Statistics ", Ramallah, Palestine.

Palestinian Central Bureau of Statistics, (2000), "Palestinian Maternal and Child Health, a Qualitative National Study", Ramallah, Palestine.

Palestinian Central Bureau of Statistics, (1999), "Population, Housing and Establishment Census-1997, Final Results- Housing Report- West Bank", First Part, Ramallah, Palestine .

Payne S, (1991), "Women, health and poverty: an introduction". Harvester Wheatsheaf, New York.

Platt, S. (1989), "Damp housing, mould growth and symptomatic health state ", British Medical Journal 298 :1673.

Shaer, Naser Al Deen (2002), "Familial Violence Against Woman Causes and Solutions", An- Najah journal, An Najah National University, Nablus, Palestine.

Satterthwaite, David (1995). "The underestimation of Urban Poverty and of its Health Consequences", Third World Planning Review, 17 (4), pp.3-1.

United Nation Center for Human Settelments (UNCHS) (Habitat) (1995). "Human Settlement Interventions Addressing Crowding and Health Issues", Nairobi. United Nation Refugee Working Agency (UNRWA) Headquarters (Vienna), (1986), "UNRWA a brief history (1950-1982)" P8.
United Nation Refugee Working Agency (UNRWA) Camp profile, (2003a) available at the wourld webpage:
HTTP: //WWW.UN.ORG /UNRWA/ REFUGEES /WB /NO1.HTML#TOP.

United Nation Refugee Working Agency (UNRWA), (2003 b) Refugees, available at the world webpage:
http://www.un.org/unrwa/refugees/p2.html#TOP.

Van der Kwaak A., van den Engel M., Richters A., Bartels K.,Haaijer I., Mama A., Veenhoff A., Engelkes E., Keysors L. and Smith I . , (1991), "Women and health". Copyright Elsivier science Ltd.

Wilkinson, D, (1999). "Poor housing and ill health", summary of research evidence, Housing research Branch, Crown copy right, Scotland, http://www.scotland.gov.uk/cru /documents /poor-housing-01.pd

Yoon S-Y. (1994), "Gender and health", Paper for the gender-working group, United Nations Commission on science and Technology for Development. International Development Research Center, Ottawa

Zaanoun F., (1989), "Palestinian's Camps between reality and Housing Strategies". Case Study; Balata Camp, Nablus City, Journal of Involuntary Migration, An- Najah National University.

Interviews:

1. Faisal Al-Zaanon, 18 /8/2003, Social Science Department, An- Najah National University, Nablus, Palestine.

2. Jamal Bourini, 6/8/2003, the Director of Al-Ein Refugee Camp, Nablus, West Bank, Palestine.

3-Najwa Abu-Halimeh, 19/8/2003, nurse in the Clinic of Asker Camp, Nablus, Palestine.

بسم ا الر ن الرحيم

استبيان حول علاقة صحة المرأة والسكن

1-رقم الاستمارة :

2-التاريخ :-

3- الأسرة

عمل رب الأسرة	
عمل ربه الأسرة	
عدد أفراد الأسرة	
عدد الذكور	
عدد الإناث	
معدل الدخل الشهري	

4-ا قابلة ت مع :

1-إلام 2- الابنة 3- ا دة

5-التوزيع العمري لأفراد الأسرة :-

الأفراد	الام	الأب	الابناء	البنات
العمر				

6-هل تو أحد الأطفال ا رضى بالبيت السنوات ا مس الأخ ة ؟ 1- نعم 2-لا

اذا كان ا واب نعم فلماذا؟____

____

____

7- السكن :-

عدد الغرف ا سكن	
ا ساحة الا اليةللمسكن	
متوسط عدد الأطفال الذين ينامون الغرفة الواحدة	
متوسط عدد الأطفال الذين ينامون سرير واحد	

8-هل ا سكن 1- إ ار 2 -ملك 3- غ ذلك /حدد

9-مم ب ا سكن؟

1- أ نت مسلح 2-حجر 3-طوب أ ر 4-اسبست

10-هل يع الأسطح مسقوفة ا ل نعم لا

11-هل سقف ا سكن :-

1-أ نت مسلح 2- أ نت 3- صفيح 4- غ ذلك /حدد

طريقه ا ياة :

12-هل تتواجد ا رافق الصحية

1- داخل ا سكن 2-خارج ا سكن 3- داخل ا سكن وخارجة 4- غ

ذلك /حدد

13-هل ا رافق الصحية

1-خاص با سكن 2- مشترك مع مساكن أخرى 3- غ ذلك /حدد

14-ما هو مصدر ا ياه ا ستعملة ا سكن
1-شبكه مياه 2- بئر ع ياه الامطار3- خزان ماء (شراء تنكات) 4- غ ذلك /حدد

15-ما هو مصدر التدفئة ا سكن
-الكاز 2- الغاز 3- الكهرباء 4- ا طب 5- الفحم 6- غ ذلك/حدد

16-ما هو ا صدر الطاقة الذي يستخدم تسخ ا اء اللازم لاستحمام آو الغسيل -الكاز 2- الغاز 3- الكهرباء 4- ا طب
5- غ ذلك/حدد

-17

السؤال	نعم	لا
هل ا سكن مربوط بشبكه صرف صحي		
هل ا سكن مربوط فرة امتصاصية		
هل تعيش الاسرة مع اهل الزوج او الزوجة؟		
هل هناك مصدر للضجيج قريب من ا ل		

18- هل توجد حيوانات داجنة ا ل نعم لا

اذا كان ا واب نعم فما هي؟--

19-هل يوجد تاه صحي للعائلة نعم لا

20- ما هو نوع ا دمات الصحية ا توفرة ا خيم؟
1-عيادة خاصة 2- مستوصف 3- عيادة يم 4- غ ذلك حددي.

21-هل تذهب العائلة ا العيادة او ا ستوصف با توسط
1-مرة بالشهر 2-مرتا بالشهر 3-اكثر من ذلك

22-هل هناك مشاكل بيئية داخل ا ل او حوله؟ نعم لا

-اذا كان ا واب نعم فما

هي؟بالتفصيل---

23-هل هناك مصدر للغبار والاتربة قريب من ا ل نعم لا

ا ذا كان ا واب نعم فما هي؟---

24-هل ا ل توي على وسائل سلامة وامان نعم لا

اذا كان ا واب نعم فما

هي؟---

25-هل يوجد تسرب مياة او تشققات السقف او ا دران نعم لا

26- هل يتم التخلص من النفايات بالطرق الصحيحة نعم لا

اذا كان ا واب لا

فلماذا؟--

-

معلومات ص صحة ا راة

27-الفئة العمرية :

1-العمر ا 19 سنة

2-شابة صغ ة (20-29) سنة

3-امراة متوسطة العمر (30-39)

4-امراة مسنة 40 سنة فما فوق

28-ا الة الاجتماعية -متزوجة
1-عزباء
2 -مطلقة
3- ارملة

29-مستوى التعليم 1 - ثانوي
2 -توجيهي
3 - غ ذلك / حددي..........................

ط ا ياة اليومية

30-ماهي الاعمال او النشاطات ال تقوم با خلال اليوم
1-شراء حاجيات البيت 2- الغسيل 3-نظافة البيت 4- مساعدة الزوج عملة 5- غ ذلك/حددي

ادراك ا راة فهوم الصحة

31-ما تعريف الصحة رايك ؟

ادراك ا راة لاثر ا سكن على الصحة

***32-هل** تعتقدين ان للمسكن اثر مباشر على الصحة ؟ نعم /لا*

كيف؟---

مواد البناء

33-هل مسكنك صحي؟ نعم / لا

34-هل تعتقدين ان ا دران السميكة والتالفة ا تشققة ا اثر على الصحة كا وف والقلق من سقوط ا سكن؟--

اصلاح ا سكن

35-اذا كنت تعا من عيوب مسكنك هل هناك اولات جادة لاصلاح هذة العيوب ؟نعم/لا

-اذا لا ما الاسباب ؟---

خدمات ا ياة

36-اذا كان لديك ام خارج ا ل او ام مشترك ما هي الصعوبات ال تواجهك كامراة وام من وجودة خارج ا ل خاصة الليل او ال د

37-ما هي ا ضار الصحية من وجود ا مام خارج ا ل؟--

التهوية والرطوبة داخل ا سكن

38-هل تعتقدين ان للتهوية السيئة داخل ا ل والرطوبة العالية اثر ضار على

الصحة ؟نعم **لا**

كيف؟---

39-ما عدد الشبابيك ا سكن

1-شباك 2-شباك 3- بدون شبابيك

40-اذا كانت التهوية سيئة م لك كيف تعا ينها -هل تضطرين ا فتح الابواب ؟نعم/لا

الازدحام

***41**-هل لازدحام المسكن اثر على الصحة وانتشار الامراض ؟ نعم*

لا

كيف؟---

42-هل تشعرين با صوصية م لك نعم/لا

اذا لا ما السبب؟---

43-هل واجبات ا ل متعبة جدا ام لديك وسائل للمساعدة كالغسالة

مثلا؟--

44-هل ضيق ا ل يسبب صعوبة الاعمال ا لية ؟نعم/لا

كبف؟---

العمل من ا ل

45-هل تعملين داخل المنزل؟نعم/ لا

-اذا نعم ماطبيعة هذا العمل

وما هي اهم الصعوبات ال تواجهك اثناء العمل

اسئلة خاصة با راة ا تزوجة

-46

ما عدد سنوات زواجك	
سن الزوجة عند الزواج	
فترة التباعد ب الولادات	
وسائل تنظيم الاسرة ا ستخدمة	

47-هل انت الزوجة الاو ام الثانية ام غ ذلك ؟------------------

48-هل يوجد اجهاضات ؟ نعم / لا

-اذا نعم كم عددها ؟.-----

-وما السبب ؟-------------

49-هل حصل معك مضاعفات للحمل ؟ نعم / لا

-اذا نعم ما هي ؟----------

50-هل هناك عناية با امل قبل الولادة ؟ نعم / لا

51-هل ولادتك طبيعية ؟ نعم /لا

52-ماهي اهم ا شاكل الصحية ال تعا منها .هل تعا من
1-اوجاع الظهر او الرقبة
2-امراض مزمنة
3- مشاكل بالاسنان
هل تزورين طبيب الاسنان بانتظام / نعم / لا
-اذا ا واب لا ما السبب ؟-------------------------------------

53-ما انواع العلاجات ا ستخدمة ؟-------------

54-ما هي ا شاكل ال تواجهك تربية الاولاد ؟

55-هل م لك امن للاطفال ؟ نعم / لا
-------؟كيف

56هل تعتقدين ان الزوج ا ب ا هتم بشؤون اسرتة لة اك الاثر صحة ا راة؟ نعم / لا

اسئلة خاصة بالفتيات الغ متزوجات

46-هل تعان من أي امراض او مشاكل صحية كالصداع مثلا ؟ نعم /

لا

-اذا نعم ما هي ؟-------------------------------------

47-هل الدورة الشهرية لديك منتظمة ؟نعم /لا

48-هل تعتقدين ان لتعليم ا راة اثر صحة افراد الاسرة؟ نعم /لا

كيف؟---

49-هل تعان من مشكلة ازدحام البيت ؟ نعم /لا

50-هل تقوم بدعوة زميلاتك ا درسة لزيارتك البيت ؟ نعم /لا

-اذا لا اذا ؟--

-اذا نعم دائما ام قليلا؟---

51-هل تشعرين بالاحراج نتيجة ازدحام البيت؟ كيف ؟-------------------------------------

52-هل تساعدين والدتك اعمال البيت ؟ نعم /لا

53-اذا كان لديك اخوة ذكور هل تشعرين ان طلبا م ابة اكثر ؟ نعم /لا

-ذا نعم ما السبب؟--

54-كيف تقض اوقات فراغك ؟ ---

55-هل لديك حرية ا روج من ا ل؟--------------------------------------

جامعة النجاح الوطنية

كلية الدراسات العليا

اثر بيئة ا سكن على صحة ا رأة ا خيمات الفلسطينية: دراسة عن يم الع للاجئ
مدينة نابلس

إعداد الطالبة :
رانية نبيل فوزي عرفات

إشراف:
د. محمد مسمار
د.عصام الخطيب

قدمت هذه الأطروحة استكمالا لمتطلبات درجة الماجستير في الصحة العامة بكلية الدراسات العليا في جامعة النجاح الوطنية في نابلس، فلسطين.

2003

الملخص

ت هذه الدراسة خلال الفترة الواقعة ب شهري كانون الثا و شباط من عام 2002 . اختيار 150مسكنا من مساكن يم العـ للاجئ الفلسطيني مدينة نابلس . ت المقابلات مع 150امراة تنتمي لفئات عمريه و حالات اجتماعية ختلفة، منها 103 امرأة متزوجة و 47 امرأة غ متزوجة.استخدم البحث استبانه ت دراستها بشكل جيد لتغطي كافة المعلومات ال تعكس التركيب الاجتماعي ، و ا الة الصحية وا دمات الصحية المتوفرة ا خيم ، بالإضافة إ أسئلة تقيس مدى إدراك ا رأة ووعيها لأثر ا سكن على الصحة.

أظهرت نتائج البحث وجود ارتباط معنوي قوي ما ب الصحة النفسية وا سمية للمرأة و ظروف ا سكن الذي تعيش فيه ،حيث بينت النتائج ارتباطا قويا ب ازدحام ا سكن ثلا بعدد الأفراد الأسرة ،وعدد الأطفال الذين ينامون غرفة واحدة ، وعدد الأطفال الذين ينامون سرير واحد، ومساحة ا سكن وعدد الغرف ا توفرة و ب شعور ا رأة سواء متزوجة أم لا با صوصية داخل ا سكن (آثار نفسية واجتماعية). من جهة أخرى يظهر البحث أن معظم ا ساكن يم العـ غ صحية ومزد ة وأن معدل دخل الأسرة منخفض جدا،كما أن ا الة الصحية للمرأة واهتمامها بصحتها بشكل عام سيئة. كما دلت النتائج أن هناك اختلاف كب درجة وعي ا رأة و إدراكها فهوم الصحة ، إذ تب أن بعض النساء يفهمن الصحة بأ ا رد ا لو من ا رض، والبعض الآخر ربطن ما ب الصحة والسلوك الصحي كالتغذية السليمة والنظافة والوقاية من ا رض . كما أن ثقافة الام تلعب دورا هاما صحة أفراد الأسرة. بعض النساء ربطن ما ب الصحة والبيئة ال يعيش فيها الإنسان كا سكن، كما بينت النتائج أن معظم النساء يدركن الارتباط ما ب ظروف ا سكن والصحة، لكن لا يعرفن ما هي الشروط ال ب أن تتوفر ا سكن الصحي.

تقدم هذه النتائج الدليل على أ ية إصلاح ظروف ا سكن لتحس صحة الأسرة بشكل عام وا رأة بشكل خاص .